C3123-764

DIGITAL VIDEO CAMCORDER

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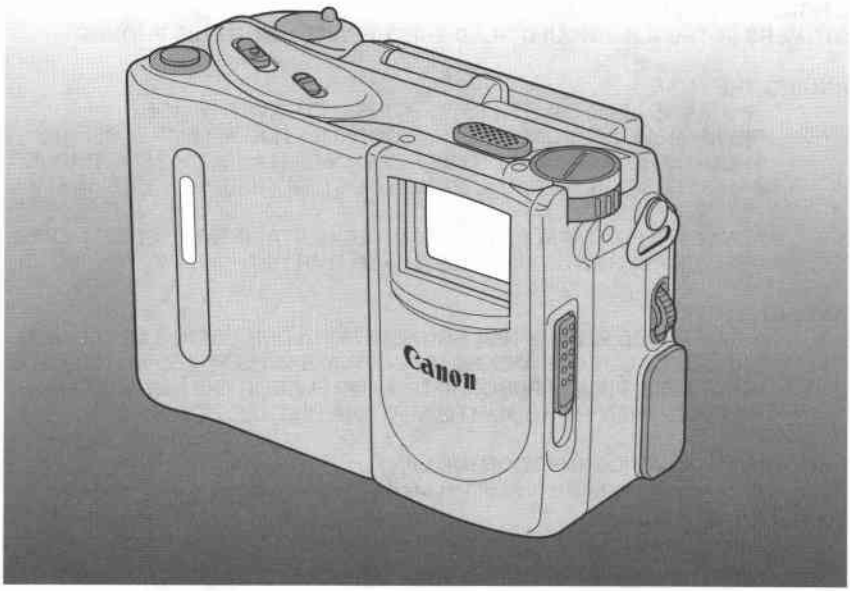
Instruction Manual



Mini DV Digital Video Cassette

Canon MV100

PAL

Important Usage Instructions

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CAUTION:

TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE COVER (OR BACK). NO USER SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.

WARNING:

TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK, DO NOT EXPOSE THIS PRODUCT TO RAIN OR MOISTURE.

CAUTION:

TO REDUCE THE RISK OF ELECTRIC SHOCK AND TO REDUCE ANNOYING INTERFERENCE, USE THE RECOMMENDED ACCESSORIES ONLY.

Introduction

CAUTION:
CUSTOMERS IN THE U.K. SHOULD READ THIS BEFORE USING THIS PRODUCT.

CHANGING THE FUSE

THE MAINS LEAD ON THIS PRODUCT IS FITTED WITH A NON-REWIREABLE (MOULDED) PLUG, INCORPORATING A 3 AMP FUSE. SHOULD THE FUSE NEED TO BE REPLACED AN ASTA OR BSI APPROVED BS1632 FUSE OF THE SAME RATING MUST BE USED.

ALWAYS REFIT THE FUSE COVER AFTER REPLACING THE FUSE. NEVER USE THE PLUG WITH THE FUSE COVER OMITTED.

CHANGING THE PLUG

IF THE FITTED PLUG IS NOT SUITABLE FOR YOUR SOCKET OUTLETS, IT SHOULD BE CUT OFF AND AN APPROPRIATE PLUG FITTED IN ITS PLACE. IF POSSIBLE FIT AN APPROPRIATE 3 AMP FUSE. IF THE NEW PLUG HAS NO FUSE, THEN FIT A 5 AMP FUSE AT THE DISTRIBUTION BOARD.

MAINS LEAD CONNECTION (UK only)

The wires in the mains lead of this apparatus are coloured in accordance with the following cord.

(IMPORTANT)

As the colours of the wires in the mains lead may not correspond with the coloured markings identifying the terminals in your plug, proceed as follows: The wire which is coloured BLUE must be connected to the terminal which is marked with the letter N or coloured black. The wire which is coloured BROWN must be connected to the terminal which is marked with the letter L or coloured red. Neither Blue wire or Brown wire is to be connected to the Earth pin of a 3 pin plug.

THE SEVERED PLUG MUST BE DESTROYED IMMEDIATELY TO AVOID ANY POSSIBLE ELECTRIC SHOCK HAZARD.

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Thank you for choosing a Canon

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First, we'd like to thank you for purchasing this Canon camcorder. Its advanced technology makes it very easy to use — you will soon be making high-quality videos which will give you pleasure for years to come.

To get the most out of your new camcorder, We recommend that you read this manual thoroughly — there are many sophisticated features which will add to your recording enjoyment.

Getting started

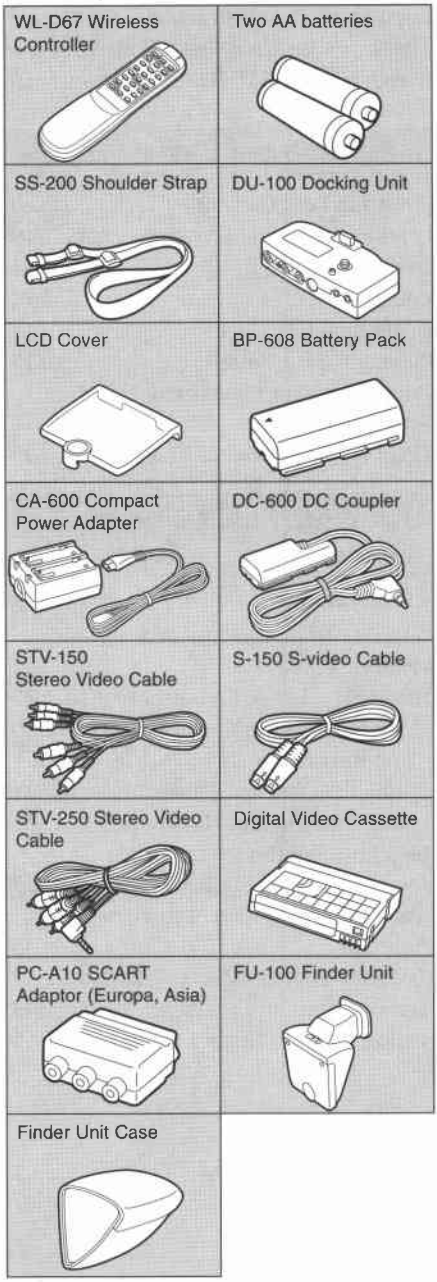
To get started we suggest that you master the basic operations of the camcorder first, before moving on to use its full range of features.

For quick reference (in addition to the contents and index) please refer to:

- Finding your way around the camcorder (p. 75)
- Screen displays (p. 78)
- Troubleshooting — in case you run into any problems (p. 68)

Note that capital letters are used to refer to settings displayed in the menus and buttons labelled on the camcorder itself e.g. Press the EJECT button.

Your camcorder is supplied with the following accessories:



Introduction

Introducing the MV100

Digital Video

MV100 is a next generation digital video camcorder that conforms to the new digital video Mini DV standard to give you outstanding picture quality.

2.5" LCD Screen (180,000 Pixels)

The high resolution LCD screen makes it easy for you to shoot colourful, well composed video. It is also great for playback.

Finder Unit

The MV100 comes complete with a Finder Unit, that simply clips onto the LCD screen to convert it to a viewfinder.

Image Stabilizer

Stabilizes your recordings even at the furthest reaches of the zoom range.

11× lens and 44× digital zoom

From wide-angle to 11× telephoto — with unparalleled optical quality. The digital zoom magnifies this by four for even more dramatic results.

Digital Effects

Advanced digital technology allows you to add special effects and scene transitions to your recordings.

World Clock

There is no need to reset the clock when you take a trip across time zones. When you play back your recordings, tell the camera where you went and it will make sure that the correct time is shown.

PCM Digital Sound

Offers you stunning digital sound —16bit for greater than CD-quality sound, and 12bit for the playback of audio-dubbed cassettes.

Lithium ion power supply

The MV100 features the latest in portable power technology.

Powering Your Camcorder

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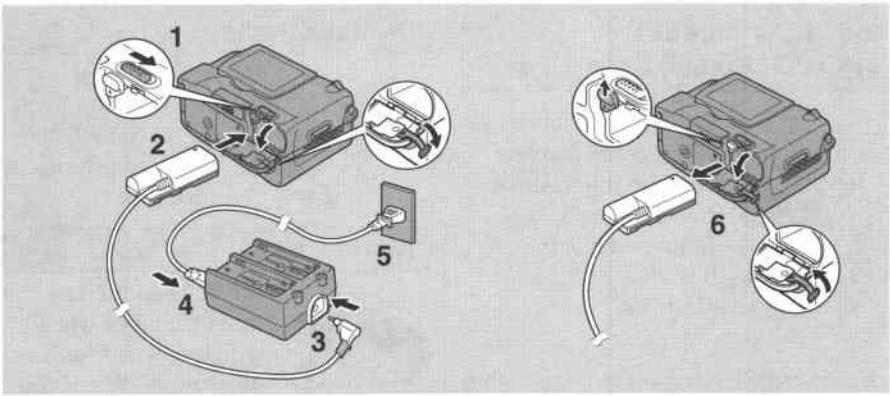
Before operating your camera, you will need to use the power adapter to:

provide power from a mains outlet or **charge battery packs**

Notes:

- The power adapter converts current from a household power socket (100–240 V AC, 50/60 Hz) to the DC current used by your camera.
- If the adapter is used next to a TV, it may cause the TV to emit noise — move the adapter away from the TV or the antenna cable.

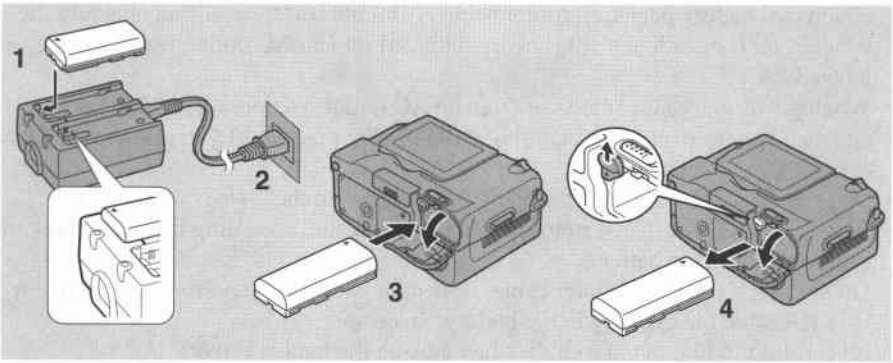
Connecting the camera to a mains outlet



Use the power adapter and the DC coupler to provide your camera with instant power from a mains outlet.

1. **Slide the battery cover release switch in the direction of the arrow.**
   - The battery cover flips open.
2. **Insert the DC coupler into the camera, in the direction of the arrow until it clicks into place.**
   - Lift up and pull the small rubber stopper out slightly and feed the cable through the opening. You can now close the battery cover.
3. **Connect the DC coupler to the adapter.**
4. **Connect the power cable to the adapter.**
5. **Plug the power cable into a mains outlet.**
6. **Remove the DC coupler after use.**
   - Place the camera on its side before removing the coupler, since the coupler may drop out when you press the battery release knob.
   - Slide across the battery cover release switch (and replace the small rubber stopper).
   - Press the battery release knob (orange) upwards.
   - Always turn the camera off before removing the power source.

Charging and attaching battery packs



Your battery pack was partially charged before it left the factory. It should have enough power for you to check that your camera is working properly. However, you must charge the battery pack fully if you want it to power the camera for more than a few minutes.

The power adapter supplied with your camcorder can hold two battery packs and is capable of charging them one after another. Additional battery packs are available as an optional accessory (p. 73).

1. **Attach one or two battery packs to the power adapter.**
   - Make sure the DC coupler is not connected.
   - Align the triangle on the battery pack with the guide line on the power adapter.
   - Press the battery pack down, and slide it in the direction of the arrow until it clicks into place.
2. **Connect the power cable to the adapter and plug the power cable into a mains outlet.**
   - One of the two charge indicators flashes red to show that charging is in progress. Single flashes mean that the battery pack is less than 50% charged. Double flashes mean that it is between 50% and 75% charged. Triple flashes mean that it is more than 75% charged.
   - The indicator glows steadily when the battery pack is fully charged.
   - If you attached two battery packs, the second battery pack now begins to charge: its indicator flashes red to show that charging is in progress.
3. **Take the battery pack off the adapter and insert it into the camera.**
   - Slide across the battery cover release switch, insert the battery in the direction of the arrow until it clicks into place, then close the battery cover.
4. **Remove the battery pack after use.**
   - Place the camera on its side before removing the battery pack, since the battery pack may drop out when you press the battery release knob.
   - Slide across the battery cover release switch.
   - Press the battery release knob upwards.
   - Always turn the camera off before removing the power source.

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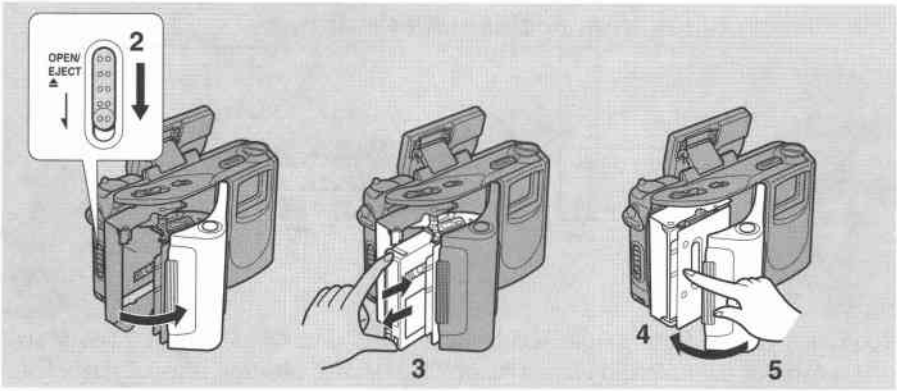
Notes:

- The adapter can charge a single battery pack from either side, A or B. If you attach two battery packs, charging begins from the battery you first attach to the adapter, or, if the adapter was already plugged into an AC outlet, from the side labeled "A".
- When powering your camcorder from an AC outlet, you do not need to remove attached battery packs, but charging will not take place until you remove the DC coupler from the adapter.
- You can find detailed notes for using the batteries in the "Notes on Using the Batteries" on p. 60. These notes include charging and recording times and how to charge the back-up battery.
- Do not tug at the DC Coupler cable, or bend it backwards and forwards, while it is fed through the opening in the battery cover.
- Be careful not to pinch the cable when closing the battery cover.

Loading a Cassette



Use video cassettes marked with the Mini DV logo only.*

Loading and unloading

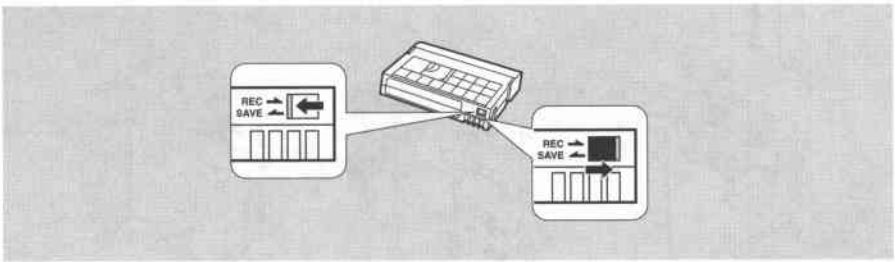
1. **Make sure that you have inserted a power source.**
2. **Slide the OPEN/EJECT ⏏ button downwards to release the cover (the camera's grip).**
   - Pull the cover fully open and wait a couple of seconds for the cassette compartment to open automatically.
3. **Load or unload the cassette.**
   - Insert the cassette gently with the window facing out (and the erasure prevention tab to the bottom).
   - Remove the cassette by pulling it straight out.
4. **Press the PUSH mark on the compartment until it clicks, and wait for it to close.**
5. **Click the cover back into place.**

* Mini DV is a trade mark.

Notes:

- After loading a cassette, use record search (p. 33) to find the point where you want to start recording.
- Do not interfere with the cassette compartment while it is opening or closing automatically, or attempt to close the cover.
- Do not leave the cassette in the camera after use — return it to its case and store it in a cool, clean, dry place.

Protecting tapes from accidental erasure



To protect your recording from accidental erasure, slide the tab on the cassette so that it exposes the hole and the red mark. (This switch position is usually labeled SAVE or ERASE OFF).
If you load this cassette and put the camera in record pause mode (p. 11), the ⌦ mark flashes in the display.
If you want to record on the cassette again, slide the tab back so the hole is closed, and the red mark covered.

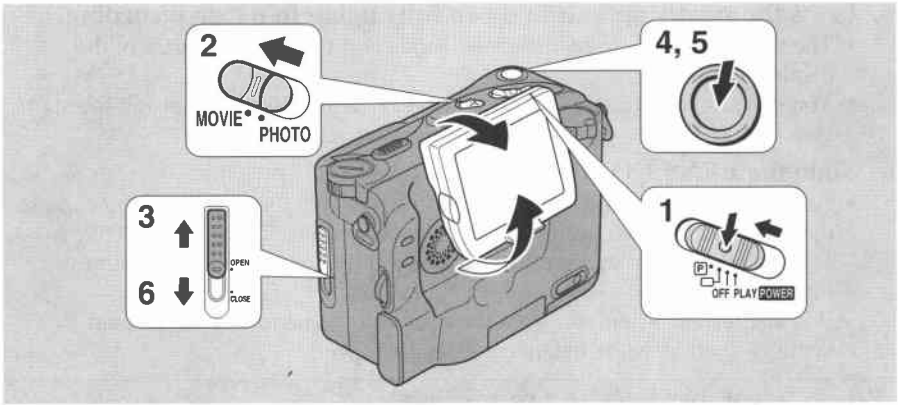
Handling cassettes

- To protect the tape heads, transfer cassettes directly from the tape case to the camcorder – do not open the tape protect cover or touch the tape itself.
- Do not use cassettes where the tape has been damaged or rejoined – they may damage the camcorder.
- Do not insert anything into the small holes on the cassette or cover them with cellophane tape.
- Handle cassettes with care – dropping them or exposing them to external shocks may cause internal damage.
- Store cassettes in the provided case, rewinding them to the start of the tape first, and then storing them upright.
- A cassette with metal plated terminals may become dirty with use, affecting information transfer. Therefore, after using a tape around ten times, be sure to clean the terminals with a cotton wool bud.

Cassette Memory

You are unable to use the cassette memory function with this camcorder.

Basic Recording



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Before you start recording

Have you completed the following steps?

- Attached a power source (p. 6).
- Loaded a cassette (p. 9).
- Fastened the shoulder strap (p. 59).
- Removed the LCD cover (p. 59).

You may also want to charge the backup battery (p. 61) in order to set the date and time display (p. 31).

To record

1. **Press down and slide the POWER switch to ☐.**
   - This selects the camera's Easy Recording program. It allows you to simply point and shoot without making any manual adjustments (see p. 36).
2. **Slide the MOVIE/PHOTO switch to MOVIE.**
3. **Slide the LENS COVER switch to OPEN.**
   - The lens cover opens and PAUSE appears in the display — the camera is now in "record pause mode."
   - The camera will turn itself off if you leave it in record pause mode for more than about five minutes. To return to record pause mode, slide the LENS COVER switch to CLOSE and back again, or set the POWER switch to OFF and then back to ☐.
4. **Press the start/stop button down fully (the red button) to begin recording.**
   - REC appears in the display.

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5. **Press the start/stop button down fully again to pause recording.**
   - The camera returns to record pause mode and PAUSE reappears in the display.
   - You can stop and restart recording as often as you like by pressing the start/stop button.
6. **Slide the LENS COVER switch to CLOSE.**
   - As long as the POWER switch is set to ☐ or P (see page 11), you can use the lens cover switch to turn the camera on and off. This makes it easy to save battery power, and prevents accidental operation of the start/stop button.
     It is also useful when you want the camera to remember your manual settings, such as white balance and shutter speed.

When you have finished recording

- Slide the LENS COVER switch to CLOSE.
- Return the LCD screen flush to the camera body, and replace the LCD cover.
- Unload the cassette.
- Set the POWER switch to OFF.
- Disconnect the power source.

Notes:

- Make sure that your fingers do not obstruct the microphone or lens during recording.
- In addition to ☐ (Easy Recording), the camera has six other recording programs. Turn the POWER switch to the P position to give you access to these recording programs (p. 35) and also to the digital effects (p. 39).
- To check that the camera is recording correctly, make a test recording first.
- Before making important recordings, clean the video heads using a Canon DVM-CL Digital Video Head Cleaning Cassette or a commercially available digital video head cleaning cassette.
- You cannot monitor the sound from the speaker when recording.
- For tips on how to make better videos, see page 25.

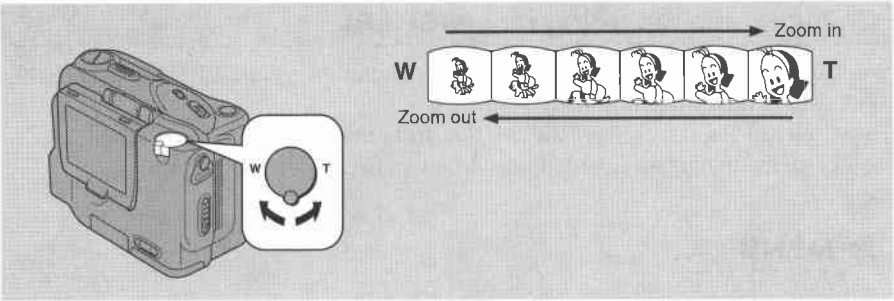
Changing the recording mode (SP/LP)

You can record and play back a tape in SP (standard play) and LP (long play) modes. LP extends tape usage by 1.5 times.
To switch to LP mode, select REC MODE from the camera menu, select LP and then close the menu (for instructions on how to use the menus, refer to page 27).

Notes:

- When recording and playing back tapes in LP mode, the nature of the tape and usage conditions may affect recording, mosaic-like noise may appear in the image and the sound may be distorted during playback. For important recordings, therefore, set the camera to SP mode.
- If you record in both modes on the same tape, the picture may become distorted during playback and the time code may not be written correctly.
- A tape recorded in LP mode on other digital equipment may produce mosaic-like noise and the sound may become distorted when played back on this camcorder, and vice versa.

Zooming



11× optical zoom

The camera's 11× zoom lens allows you to choose the best picture angle for each scene:

- Turn the zoom control towards W to zoom out to wide-angle.
- Turn it towards T to zoom in to telephoto.

You can also control the speed of zooming:

- Move the control slightly to zoom slowly.
- Turn it further to zoom more quickly. (The further you turn the zoom control, the faster the zoom speed.)

The T and W buttons on the wireless controller adjust the picture angle, but not the zoom speed.

44× digital zoom

Turn the digital zoom on from choosing D. ZOOM at the camera menu, to multiply the camera's zoom range by four.

MENU
(see p. 27)

▶D.ZOOM·····ON

(For an explanation of how to use the camera menu see page 27)

The zoom control continues to work as usual. You can freely zoom in and out between 1× and 44× magnification — the camera automatically switches between optical zooming (up to 11×) and digital zooming (11× to 44×).

Notes:

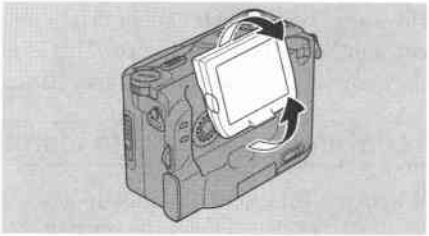
- When you want to get as close as possible to your subject, keep the zoom at the wide-angle position. You can focus on a subject as close as 1 cm (3/8 in).
- Image resolution is slightly lower when the magnification is greater than 11×.

Using the LCD Screen

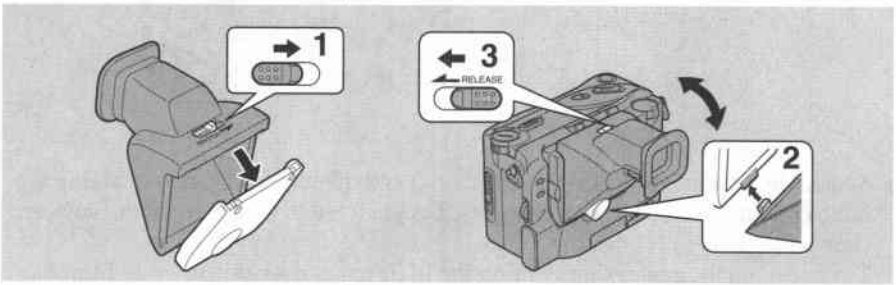
Changing the angle of the LCD screen

You can choose the angle of the screen that suits you best by tilting it upwards and away from you.

- You can use the screen for low and high-angle recording. By lifting the screen up to face the opposite direction, you can also make recordings of yourself, or allow the subject to monitor recording (see p. 16).



Attaching the FU-100 Finder Unit



You can convert the LCD screen to a viewfinder by attaching the FU-100 Finder Unit.

1. Slide across the RELEASE switch and pull off the protective cap.

2. Attach the finder unit base-first and click the top into place.

3. To remove, slide and hold the RELEASE switch while gently pulling the unit off the LCD screen, from the top first.

Notes:

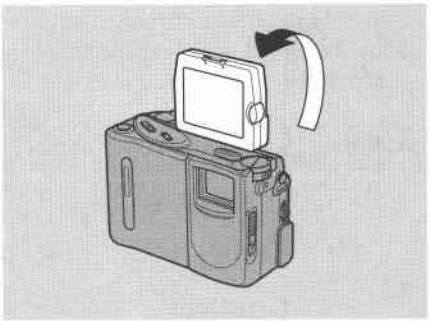
- Since the Finder Unit magnifies light, be careful not to leave it exposed to bright sunlight or it may damage the unit or the LCD screen when attached to the camera. You may be able to move the Finder Unit out of direct sunlight by changing the angle of the LCD screen. When not attached to the camera, always replace its protective cap, and never look through the Finder Unit directly at the sun or other bright light sources.
- The Finder Unit comes complete with a case that you can attach to a belt or the camera strap (see p. 59).
- You can turn the viewfinder focusing wheel (to clearly see the display) to suit your eyesight.
- Avoid touching the LCD screen or the mirror inside the Finder Unit.
- Do not hold the camcorder by the LCD panel.
- Bright light falling on the LCD screen may cause glare that makes it difficult for you to view the image. In this case, attach the finder unit. You are also able to adjust the brightness/backlight of the screen (p. 65).

About the LCD Screen

The LCD screen built into this camcorder is a high precision product. However, small black dots or bright points of light (red, blue or green) may appear constantly on the LCD screen. This is not a malfunction of the LCD screen and they are not recorded on the tape. (Effective dots: more than 99.99%)

Allowing the subject to monitor recording

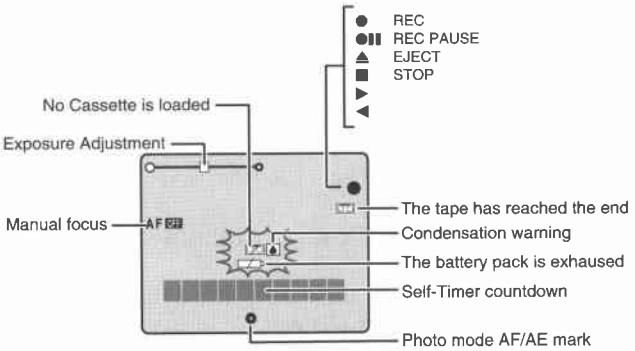
When you lift the LCD panel up vertically so that it faces the opposite direction (see diagram opposite), you can watch yourself during recording or let your subject monitor recording.



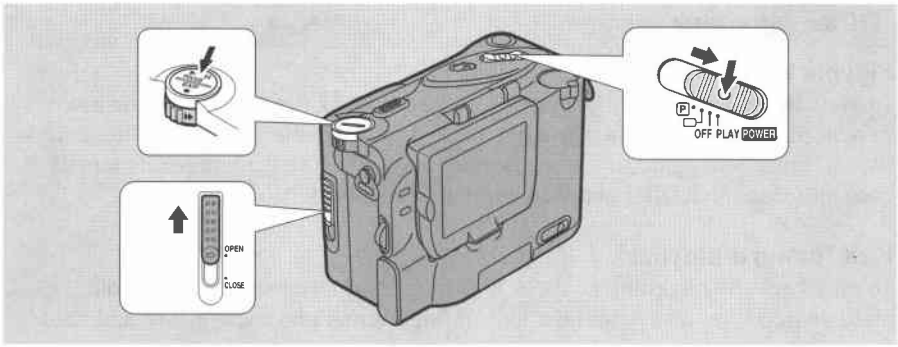
- Screen displays are reversed (mirror mode) and the time code and remaining tape indicators disappear. The recording itself is unaffected. Only certain displays are shown (see below).
- To cancel mirror mode, simply bring the LCD panel back down, away from the vertical.

Notes:

- While recording in mirror mode you cannot operate the menu.
- You can start/stop the self-timer during mirror mode, but you must set it at the menu before turning the screen upright. You can also use the wireless controller.



Playing back a Cassette



You can use the LCD screen for instant, on-the-spot playback. The camera also plays back the soundtrack via the built-in speaker (p. 18).
Operate basic playback functions from the multi-switch on the top left of the camera.

To play back your recordings on a TV, see p. 20.
To use the wireless controller, see p. 30.

Note:
- To avoid accidental recording, make sure that you slide the tab on the cassette so that it exposes the hole (the switch position is usually labelled SAVE or ERASE OFF).

1. **Attach a power source, press down and slide the POWER switch to PLAY, and slide the LENS COVER switch to OPEN.**
2. **Load the cassette.**
3. **Press down the ▶ (play) side of the multi-switch to start playback.**
   - To end playback, press down the ■ (stop) side of the multi-switch.
   - To wind the tape forwards, stop playback and turn the multi-switch lever away from the lens.
   - To wind the tape backwards, stop playback and turn the multi-switch lever towards the lens.
   - If the playback picture is rough (mosaic-like noise), clean the video heads using a Canon DVM-CL Digital Video Head Cleaning Cassette or a commercially available digital video head cleaning cassette.

Other playback modes

Playback pause

To view the video as a still picture, press down the ❚❚ (pause) side of the multi-switch. Since you play and pause playback from the same position on the multi-switch, press here again to resume normal playback. The camera automatically goes into stop mode after about five minutes' playback pause.

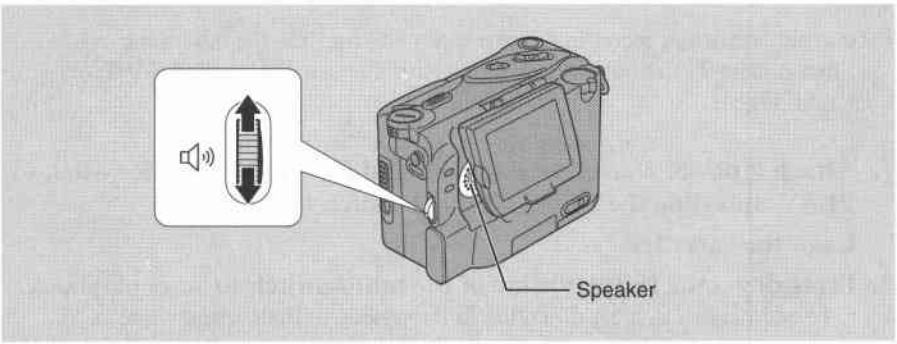
Fast forward playback

To play back the recording at about 11.5 times normal speed, turn and hold the multi-switch lever away from the lens during normal playback or turn and hold the multi-switch lever away from the lens during normal fast forward.

Rewind playback

For reverse playback at about 11.5 times normal speed, turn and hold the multi-switch lever towards the lens during normal playback or turn and hold the multi-switch lever towards the lens during normal rewind.

Built-in speaker



The camcorder has a built-in speaker so you can review the soundtrack alongside the picture during playback.

Adjust the speaker volume by turning the select dial when the camera is in play mode (p. 17).

- A VOLUME bar appears in the display temporarily to indicate the current volume.

Note:

- The speaker turns off when the camera is set to camera mode and when you use headphones (p. 43).

Special playback

These can only be operated from the wireless controller (p. 30)

Frame Advance

To play back frame by frame, press the +/▮▮▶ button repeatedly during playback pause.
Press and hold to play back continuous frame advance.

Frame Reverse

To play back on reverse frame by frame, press the –/◀▮▮ button repeatedly during playback pause.
Press and hold to play back continuous frame reverse.

Slow Forward Playback

To play back at about 1/5 normal speed, press the SLOW ▮▶ button during normal playback.
Press the PLAY ▶ button to return to normal playback.

- The camera automatically returns to playback after about 30 seconds of slow playback.

Slow Reverse Playback

To play back in reverse at about 1/5 normal speed, press the –/◀▮▮ button and then the SLOW ▮▶ button during normal playback.
Press PLAY ▶ to return to normal playback.

- The camera automatically returns to ×1 reverse playback after about 30 seconds of slow playback.

Reverse Playback

To play back in reverse at normal speed, press the –/◀▮▮ button during normal forward playback.
Press the PLAY ▶ button to return to normal forward playback.

Forward ×2 Playback

Press the ×2 button during normal playback.
Press the PLAY ▶ button to return to normal playback.

Reverse ×2 Playback

Press the –/◀▮▮ button and then the ×2 button during normal playback.
Press the PLAY ▶ button to return to normal playback.

Note:

- Mosaic-like noise appears on the screen during some of the play modes and the soundtrack cannot be heard.

Connections for Playback on a TV Screen

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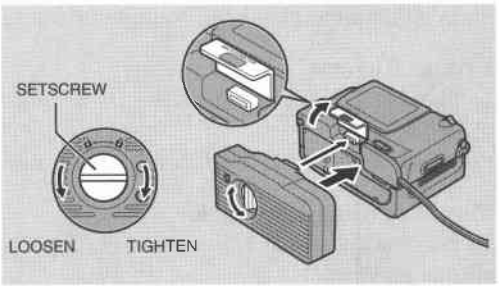
You can connect the camera to a TV or VCR in order to play back your recordings. See your TV or VCR instruction manual for further details. You will need to attach a power source to the camera (see p. 6), and for S-video or to use an RF Unit, attach the DU-100 Docking Unit.

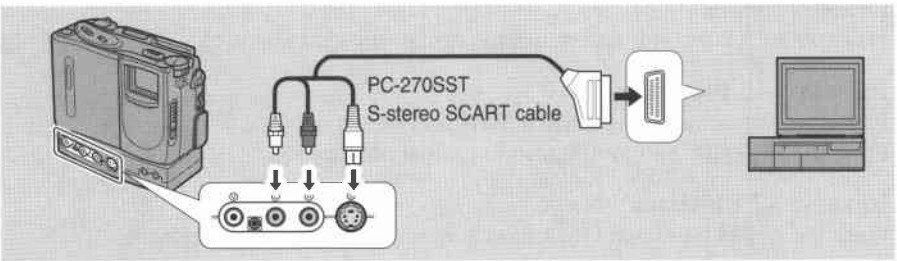
Attaching the DU-100 Docking Unit

The Docking Unit is fitted with video, audio, microphone and editing terminals. Connect it to the base of the MV100 via the MULTI-CONNECTOR.



1. **Make sure that the MV100 is switched off.**
2. **Lift the MULTI-CONNECTOR cover and align the multi-connectors of the docking unit and the camera.**
3. **Push the docking unit onto the camera and turn the locking button clockwise to fix it securely onto the base.**
   - To remove, turn the locking button anticlockwise and pull the docking unit from the base of the camera. Close the cover.
   - You cannot attach/remove a power source while the Docking Unit is attached.

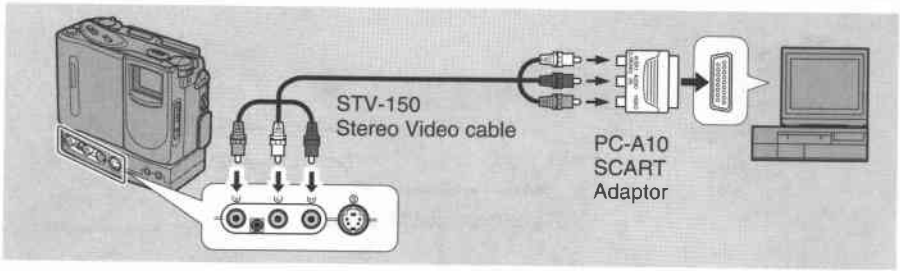
If your TV (or VCR) has a SCART terminal (S-video)



- Connect the camera to the TV (or VCR) using the optional PC-270SST S-stereo SCART Cable. Connect the white plug to the white audio terminal Ⓛ (left). Connect the red plug to the red audio terminal Ⓡ (right). Connect the S-video plug to the S-video terminal Ⓢ.
- Set the TV/VIDEO selector on the television to VIDEO.
- If you are connecting the camera to a VCR, set the input selector on the VCR to LINE.

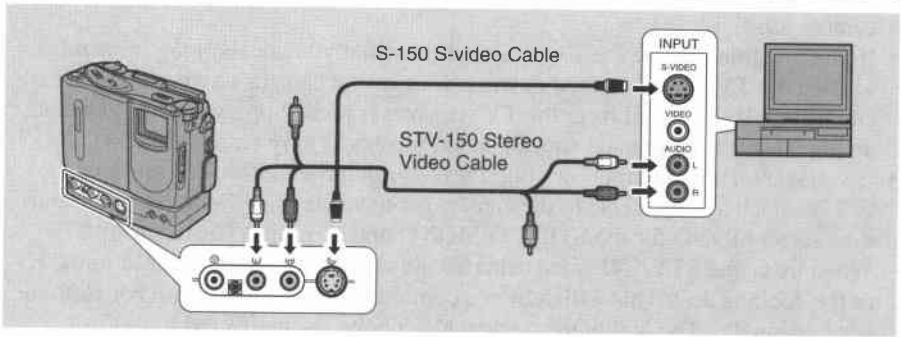
Mastering the Basics

If your TV (or VCR) has a SCART terminal (without S-video)



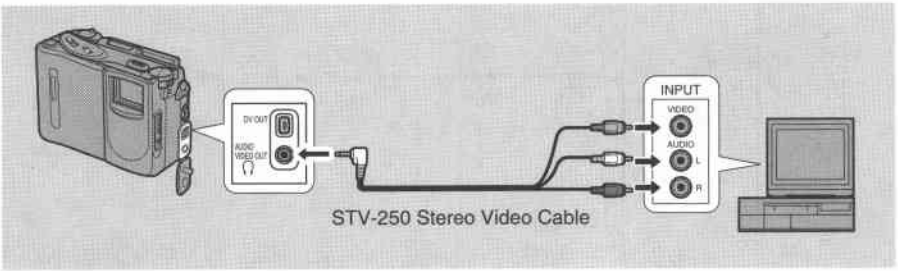
- Connect the PC-A10 SCART adaptor to the TV or VCR's SCART terminal.
- Connect the camera to the adaptor using the STV-150 Stereo Video Cable. Connect the white plug to the white audio terminal Ⓛ (left). Connect the red plug to the red audio terminal Ⓡ (right). Connect the yellow plug to the yellow video terminal Ⓥ.
- Set the TV/VIDEO selector on the television to VIDEO.
- If you are connecting the camera to a VCR, set the input selector on the VCR to LINE.

If your TV (or VCR) has an S-video input terminal



- Use the S-150 S-video Cable to connect the S-video terminal Ⓢ. Use the STV-150 Stereo Video Cable, to connect the AUDIO terminals. Connect the white plug to the white AUDIO terminal Ⓛ (left). Connect the red plug to the red AUDIO terminal Ⓡ (right). Do not connect the yellow plug.
- Set the TV/VIDEO selector on the television to VIDEO.
- If you are connecting the camera to a VCR, set the input selector on the VCR to LINE.

If your TV (or VCR) has audio/video input terminals



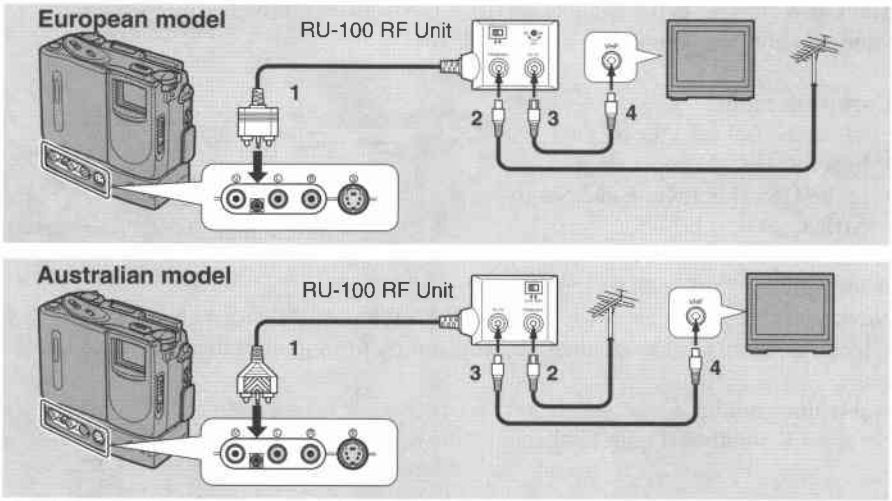
- Connect the camera using the STV-250 Stereo Video Cable. Connect the white plug to the white audio terminal Ⓛ (left). Connect the red plug to the red audio terminal Ⓡ (right). Connect the yellow plug to the yellow video terminal Ⓥ.
- Set the TV/VIDEO selector on the television to VIDEO.
- If you are connecting the camera to a VCR, set the input selector on the VCR to LINE.

Notes:

- You can use the STV-150 Stereo Video Cable in place of the STV-250 Stereo Video Cable, by connecting the audio and video to the DU-100 Docking Unit, via its L and R audio terminals and V video terminal.
- If cables are inserted to the S-Video or Video terminals of an attached Docking Unit, there will be no output from the AUDIO VIDEO OUT terminal of the camera itself.
- If you are going to use the TV as a monitor while you are shooting, remember to keep the TV volume turned down as long as the camera's audio terminals are connected. If the sound from the TV speakers is picked up by the microphone, an unpleasant high-pitched squeal, called feedback, may be produced.
- If you want a mono output (or your TV does not have audio/video terminals, p. 23), attach a video cable to the camera (or to an attached Docking Unit), and then select MONO for the STEREO/MONO option at the VCR menu (p. 27). When using the STV-150 video cable do not connect the right audio terminal R to the docking unit. This will deliver a combined mono output from both left and right channels. (The output to attached headphones is unaffected.)

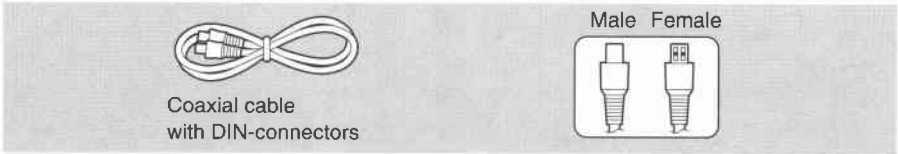
If your TV is already hooked up to a VCR, you can connect the camera to the VCR instead of the TV. Follow the instructions on the previous page.

If your TV does not have audio/video input terminals



If your TV is already hooked up to a VCR, you can connect the camera to the VCR instead of the TV. Follow the instructions on p. 17, 18 or 19.
To connect the camera directly to a TV which does not have audio/video terminals, you will need to use the supplied DU-100 Docking Unit, and the optional RU-100 RF Unit. The soundtrack will be in mono. There are two different models, one for Australia, and one for Europe and other areas.

Connecting the RF unit



1. **Connect the RF unit to the camera, via the DU-100 Docking Unit.**
2. **Select MONO for the STEREO/MONO option at the playback menu.**
   - See the note on page 22.
3. **Connect the aerial cable to the FROM ANT. terminal on the RF unit.**
4. **Connect the "female" DIN-connector on the coaxial cable to the TO TV terminal on the RF unit.**
5. **Connect the "male" connector to the aerial input on the TV.**
6. **Turn the TV on, and start playback on the camera.**
   - See p. 17 for playback.
7. **Set both the TV and the RF unit to the video channel.**

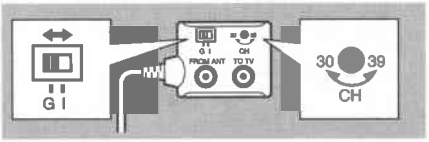
Selecting the video channel

The video channel is the channel which is not used by a broadcasting station in your area and can be used for cassette playback.

European model

First set the G/I selector on the RF unit.

- In continental Europe, set it to G.
- In the UK, Hong Kong and South Africa, set it to I.

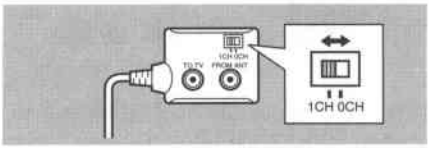


If it is not set properly, you will be able to see the picture, but not hear the sound.

Next, set the TV and the CH selector on the RF unit to the video channel. The selector is factory-set to channel 32. Adjust it by turning until the picture is clear.

Australian model

Set the TV and the RF unit to channel 0 or 1.



Note:

- Turn the camera off or disconnect it from the RF unit when you want to watch a broadcast programme. If you leave the camera connected and turned on, the RF unit will automatically select the camera signal instead of the broadcast signal.

Tips for Making Better Videos

Holding the camera

For maximum stability, grip the camera firmly with your right hand and keep your right elbow pressed against your body. Support the camera underneath with your left hand. With practice, you will be able to operate the controls by touch, without taking your eye off the action.

Using a tripod

To prevent any unwanted movement, you can mount the camera on a tripod, (or any flat surface at a suitable height.) and operate it with the wireless controller.

- When you are using a tripod, be careful not to leave an attached Finder Unit exposed to bright sunlight or it may damage the unit or the LCD screen (since the Finder Unit magnifies light). You may be able to move the Finder Unit out of direct sunlight by changing the angle of the LCD screen. When not attached to the camera, always replace its protective cap.
- Make sure that the fastening screw of the tripod is no longer than 5.5 mm (3/16 inch), or it will damage the camera.

Composition

The most important element in the scene does not have to be in the centre. For a more interesting picture, try to position your subject so it is slightly to one side. Leave some space on the side of the frame that the subject is facing or moving towards.

Don't cut off the top of the subject's head, and don't cut people off at the neck, hips or knees (move a little bit above or below).

Watch out for distracting objects in the background.

Picture angle

Instead of zooming while recording, try to choose your picture angle before you begin. A good way to tell a story with video is to begin with a long shot that establishes the situation, and then move in with medium shots and close-ups to show the details. Remember to change your viewpoint for each shot.

Remember that any camera movement or change in picture angle should have a definite purpose. Avoid unnecessary or half-hearted movements.

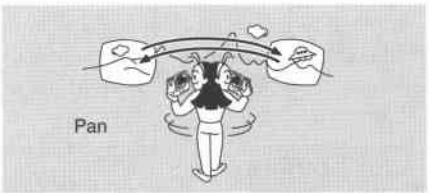
Long shot

Medium shot

Close-up

Camera moves

Use pans to record a landscape or follow a moving subject. Decide the area you want to cover and stand facing the end of your panning angle. Without moving your feet, turn your waist to the starting position. Start recording, and after a few seconds begin to turn slowly from the waist. Hold the final image for a few seconds before you stop recording.



Tilt the camera up to exaggerate the height of the subject. Tilt down from the top of a building, for example, as an introduction to subjects at the bottom.

Selecting from the Camera & Playback Menus

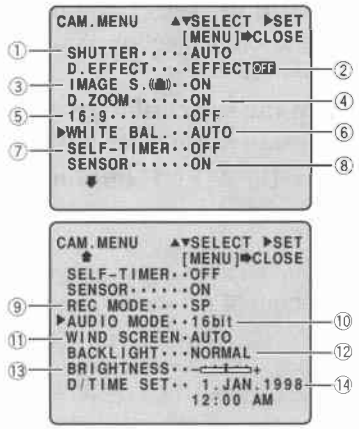
Many of the camera's advanced functions are selected from menus which appear in the display.

There are three main menus:

1. **Camera menu (when the camera is in record pause mode: the POWER switch set to ☐ or Ⓟ (p. 11) and the LENS COVER switch set to OPEN).**
2. **Playback menu (when the POWER switch is set to PLAY and the LENS COVER switch set to OPEN).**
3. **Program Menu (in record pause mode with the POWER switch set to Ⓟ and the LENS COVER switch set to CLOSE).**
   - The main purpose of this menu is to select the recording program. For an explanation of how to use this menu, see page 35.

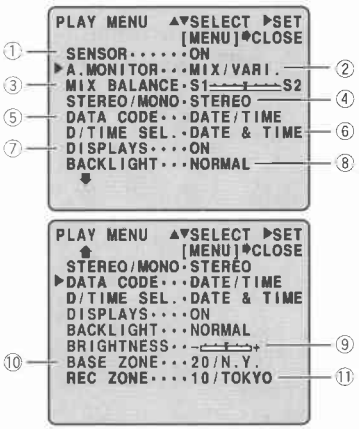
Camera menu

① Shutter speed ..... p. 47
② Digital effects ..... p. 39
③ Image stabilizer ..... p. 29
④ Digital zoom ..... p. 14
⑤ 16:9 ..... p. 42
⑥ White balance ..... p. 49
⑦ Self-timer ..... p. 45
⑧ Remote sensor ..... p. 30
⑨ Recording mode ..... p. 13
⑩ Audio mode ..... p. 43
⑪ Wind screen ..... p. 44
⑫ Backlight ..... p. 65
⑬ Brightness ..... p. 65
⑭ Date and time set ..... p. 31

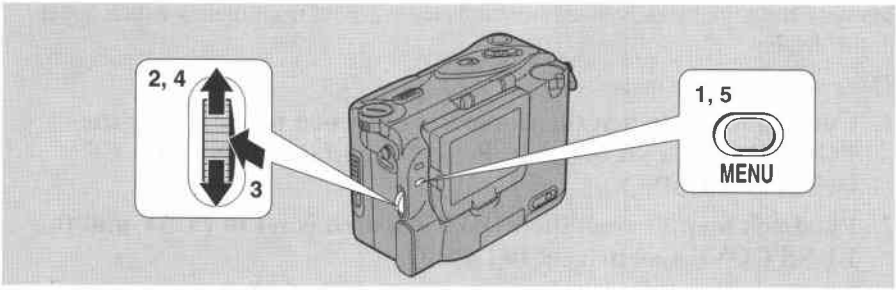


Playback menu

① Remote sensor ..... p. 30
② Audio monitor ..... p. 63
③ Mix balance ..... p. 63
④ Stereo/mono ..... p. 22
⑤ Data code ..... p. 51
⑥ Date and time select ..... p. 31
⑦ Liquid crystal displays ..... p. 78
⑧ Backlight ..... p. 65
⑨ Brightness ..... p. 65
⑩ Base zone ..... p. 53
⑪ Recording zone ..... p. 53



Turn to the appropriate page for a detailed explanation of each function.

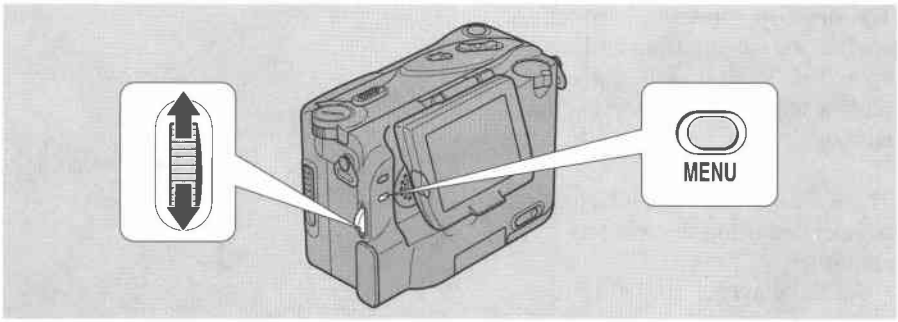


1. **Press the MENU button to open the menu.**
2. **Turn the select dial up or down to move the arrow up or down the display.**
3. **Press in the select dial to select your chosen option from the menu.**
   - Your selected option remains on the screen and all other options are removed.
4. **Turn the select dial up or down to choose its setting.**
   - You can return to the full menu by pressing in the select dial.
5. **Press the MENU button to close the menu.**

Notes:

- You can only see eight options on the screen at the same time. Pointers at the top/bottom of the screen indicate that there are more options that you can scroll through.
- You may often find it convenient to use the wireless controller to move around the menus. Press its MENU button to enter/leave the menu and use the cursor keys in place of the select dial – use the up/down keys for steps 2 and 4, the right key for step 3 and the left key to return to the full menu.
- You can display the menus on a connected TV screen using the wireless controller's TV SCREEN button.

Turning the Image Stabilizer On/Off



With most camcorders, even the slightest hand movements will be noticeable during telephoto recording. However, the MV100's image stabilizer allows you to obtain steady recordings even at 11× or 44× magnification.

Before you start recording, turn the image stabilizer on or off from the IMAGE S. option at the camera menu.

MENU
(see p. 27)

- The ((✋)) mark appears in the display when the stabilizer is on.
- The image stabilizer cannot be turned off when the POWER switch is set to the ☐ (Easy Recording) position.

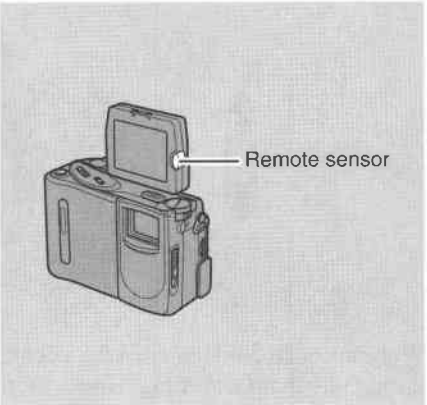
Notes:

- The image stabilizer is designed to deal with a normal degree of camera shake.
- Keep the image stabilizer turned off when the camera is mounted on a tripod.
- If you turn off the image stabilizer, it is automatically turned back on when you slide the POWER switch away from the P setting.

Using the Wireless Controller

E

The supplied wireless controller can operate the camera from a distance of up to 3 m. Point it at the camera's remote sensor while you press the buttons.

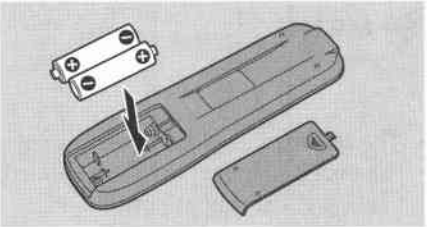


There are six functions which can only be operated using the wireless controller:

- Special playback (p. 19)
- TV-screen displays (p. 78)
- Data code on/off (p. 51)
- Photo search (p. 55)
- Date search (p. 55)
- Zero set memory (p. 54)

Inserting batteries

Insert two AA batteries, following the ⊕ and ⊖ markings. Be careful not to reverse the polarity of the batteries.



Notes:

- When using the wireless controller in brightly lit places or outdoors, the effective range will be less.
- The camera may have difficulty picking up the remote control signals at extremely close range, or certain angles. Extend the range or change the angle.
- Do not leave the controller exposed to direct sunlight, or in hot or humid places.
- When the batteries run out, replace them both together.

Turning off the remote sensor

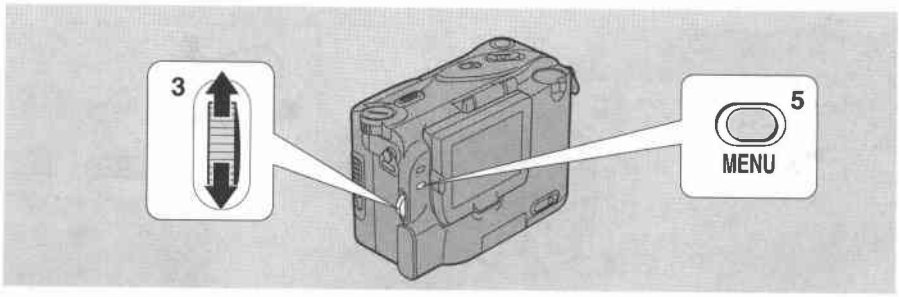
The remote sensor can be turned off to prevent interference from other Canon wireless controllers being used nearby.

▶ **MENU**
(see p. 27)

▶SENSOR·····OFF

1. **Open either the camera or the playback menu, and point the arrow at SENSOR.**
2. **Select the OFF setting and close the menu.**
   - S OFF appears in the display.

Setting the Date and Time



The date and/or time display forms part of the data code. You can choose to display or hide it during playback (see p. 51).

Set the date and time display when you first start using your camera. Charge the backup battery before you begin (see p. 61).

1. **Put the camera in record pause mode.**
2. **Open the camera menu and select D/TIME SET.**
   - The year display starts to flash.
3. **Turn the select dial up and down to change the year. Press in the dial to move to another part of the display.**
   - Once you move from the year, the next part of the display starts flashing.
4. **Set the months, days, hours, and minutes in the same way.**
   - Return to the full menu by pressing in the select dial.
5. **Press the MENU button when finished, and to start the clock.**

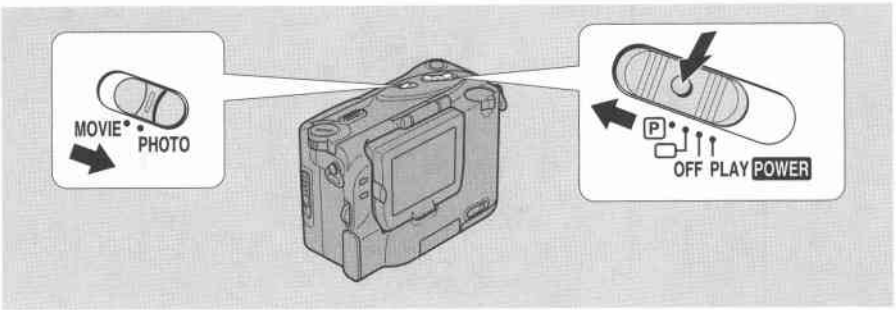
- The date can be set to any year between 1998 and 2020.
- If you press the MENU button in the middle of setting the date and time the seconds are set to zero, you leave the menu, and the clock starts.
- If you press in the dial after setting the minutes you can set the date and time again from the start.

Setting the display style

MENU
(see p. 27)

1. **Press down and slide the POWER switch to PLAY.**
2. **Open the playback menu and select D/TIME SEL.**
3. **Choose between DATE, TIME and DATE & TIME.**
4. **Press the MENU button to close the menu.**

Taking Still Pictures (Photo Mode)



You can record still pictures like a photograph. The camera records the picture to tape for 6.5 seconds. The exposure is automatically adjusted.

1. Set the camera to photo standby mode (slide the POWER switch to ☐ (Easy Recording) or P, slide the MOVIE/PHOTO switch to PHOTO and the LENS COVER switch to OPEN.

- "PHOTO" is shown at the bottom right of the display.

2. Press the start/stop button lightly.

- ● flashes white in the display as the camcorder adjusts the focus and exposure and it is displayed continuously as a green mark when the camera is ready to take the still picture. (The focus, exposure, and zoom are now locked. Also, you cannot turn the image stabilizer on /off)
- To change the still picture before recording: release the button, select a new picture and then press down the start/stop button lightly once more.
- If the subject is unsuitable for autofocus (p. 69), the camera may not be in focus, despite displaying the green mark. In this case: release the start/stop button, adjust the focus manually (p. 48) and retry.

3. Press the start/stop button fully down to take the still picture.

- The camera takes the image almost immediately, and then records the "photo" to the tape for 6.5 seconds. During this time the camera also records the sound, and the display also shows the still picture.

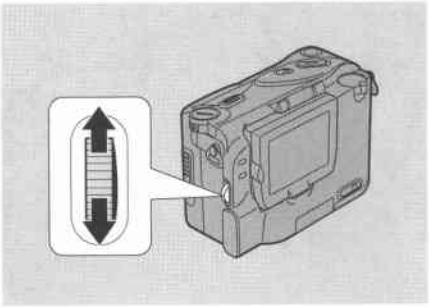
Notes:

- Transfer still pictures to a PC for image enhancement and printout via the DV Terminal (p. 57).
- While the camera records the still, you cannot use the camera functions (when a cassette is loaded, the LENS COVER switch/power off do not cut the power until recording is complete).
- You cannot use the FADE-T, WIDE or SCROLL digital effects while the camera is set to photo mode (the effect name flashes purple in the display for a few seconds).
- Only take "photos" where it is bright enough to see the image in the display.

Searching and Reviewing While Recording

Record search

When the camera is in record pause mode, you can use record search to play the tape forwards or backwards to find the point where you want to start or restart recording. This is useful when you want to add a new scene to a previously used cassette. By using record search, you can ensure a smooth, noise-free join between the new scene and the old one.



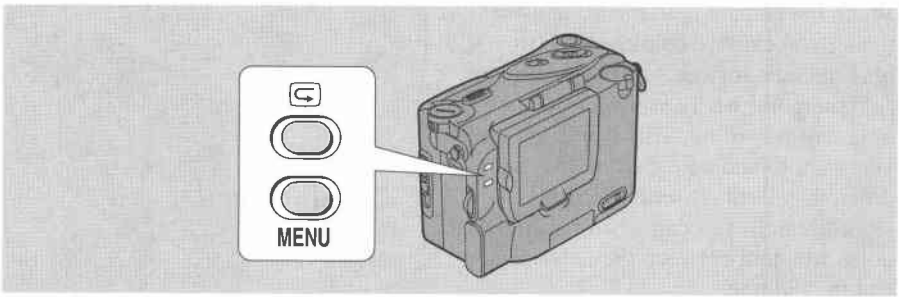
1. **Make sure the camera is in record pause mode.**
2. **Press in the select dial to open the program menu (p. 35).**
   - If the camera is set to ☐ (Easy Recording), you will enter record search mode directly.
3. **Turn the select dial to select REC SEARCH.**
4. **Press in the select dial to enter record search mode.**
   - The record search options appear on the screen:

   Turn the select dial upwards to search forwards (line up the arrow with the + mark). Turn the dial downwards to search backwards (line up the arrow with the - mark). When the arrow is at the centre, the tape is stopped.
   - The camera returns to record pause mode automatically after approximately 6 seconds when you are not searching the tape.
5. **Press in the select dial to leave record search mode**
   - The camera returns to record pause mode.

Note:

- You cannot set record search while the camera is in mirror mode (with the LCD screen facing the same direction as the lens), or without a tape loaded.

Record review



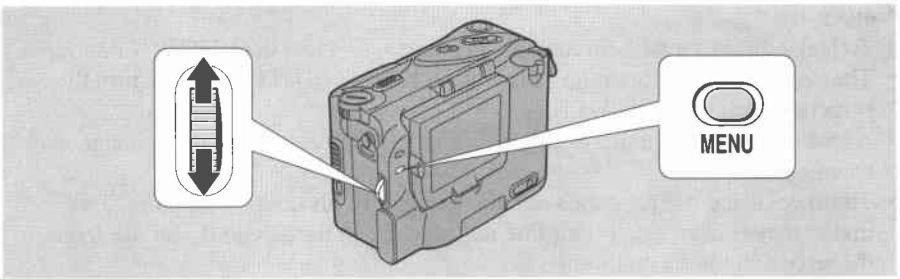
When the camera is in record pause mode, you can use record review to play back the last few seconds of your recording and then return automatically to record pause mode. You can quickly make sure that a scene has recorded properly and then go on to shoot the next scene, without producing any noise in the picture.

1. **Make sure the camera is in record pause mode.**
2. **Press and release the ⮌ (record review) button while you check the picture in the display.**
   - The camera rewinds the tape, plays back the last few seconds, and returns to record pause mode.

Note:

- Noise may appear on the screen during record search and record review.

Using the Various Recording Programs



The camera provides you with a choice of seven recording programs. They use different combinations of camera settings in order to adjust the exposure and other functions to match the recording situation.

- For simple point-and-shoot operation, select the Easy Recording program. Slide the POWER switch to the ☐ position.
- For normal shooting conditions, set the POWER switch to P, slide the lens cover to OPEN, and choose AUTO from the program menu (see below).
- For various other recording conditions, the camera has five more specialized AE (auto exposure) programs.

The name of your selected recording program appears constantly on the left of the display, with the exception of the Easy Recording program whose ☐ mark is displayed and then disappears after 4 seconds.

Selecting from the program menu

In addition to setting the recording programs you can turn the digital effects on/off and select record search.

1. **Set the camera to record pause mode, with the POWER switch set to the P position.**
2. **Press in the select dial to open the program menu.**
3. **Turn the select dial up or down to move the arrow up or down the display.**
4. **Press in the select dial to select your chosen option from the menu.**
   a) If you choose EFFECT ON/OFF, the digital effect that is currently selected turns on/off and you leave the menu (p. 41).
   b) If you choose REC SEARCH, you can turn the select dial up or down to search forwards or backwards through your recordings (p. 33). Press in the select dial to leave record search mode.
      • You can also select the REC SEARCH option when the POWER switch is set to ☐ (Easy Recording): Press in the select dial to enter record search mode directly.
   c) If you choose a recording program, its name appears in the display and you leave the menu.

Notes:

- To leave the menu without making any changes, select the RETURN option.
- The program menu Recording Program is reset to AUTO when you turn the camera off using the POWER switch.
- Avoid changing programs during recording as the brightness of the image may change suddenly.
- The specialized AE programs are not suitable for all kinds of lighting. The image may flicker, or a bright line may appear on the screen if you use them in the wrong lighting conditions.

Easy Recording

The simplest way to use the camera is with the POWER switch set to the □ position. The camera will take care of focus, exposure and other adjustments, leaving you free to point and shoot.

If you select this Easy Recording program, you cannot use:

- Exposure lock or compensation
- Different shutter speeds
- White balance set/indoor/outdoor modes
- 16:9 effect
- Digital Effects

Also, autofocus and image stabilization cannot be turned off.

Auto

In normal recording conditions, set the POWER switch to [P], and choose AUTO from the program menu. This is the same as the Easy Recording program, except that you now have the option of using any of the camera's manual functions — you can adjust focus and exposure, set the white balance, and so on. You can only adjust shutter speeds in the Auto Recording program.

Sports

This program is useful for recording high-speed sports scenes in brightly lit conditions. Normal playback will be slightly jerky, but you will get clear images which can be analyzed frame by frame during slow or paused playback on a VCR.

Portrait

Use this program outdoors to make subjects stand out from a softened foreground and background. It works well for still-lifes and close-ups. The effect is most noticeable when the zoom position is between the middle range and the telephoto end. Focus manually for maximum accuracy, and be careful when recording action scenes, as this program may cause fast moving objects to shudder.

Spotlight

This program is designed for recording spotlit scenes, such as on a stage. The exposure is automatically adjusted for glare-free recordings of subjects lit by a concentrated light source.

Sand & Snow

Use this program in places where the background is so bright that the subject appears underexposed in the display — a sunny beach or ski resort, for example. You may notice some shudder when recording moving subjects.

Low Light

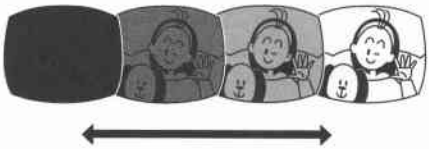
This program allows you to record in dimly lit places. It is generally best used for close-ups of slow or stationary subjects, as moving subjects may leave a trailing after-image. However, you can take advantage of this to create special effects, by rapid zooming or by panning along with a moving subject. Picture quality will not be as good as in normal lighting conditions, and autofocus may not work as well as usual.

- The camera sets the image stabilizer off while the Low Light program is selected.

Using the Digital Effects

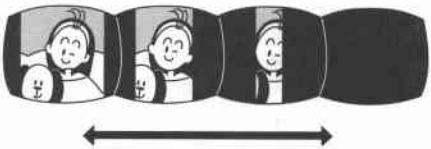
Fade Trigger

When you start recording, the scene gradually fades in from a black screen. When you stop recording, it gradually fades out.



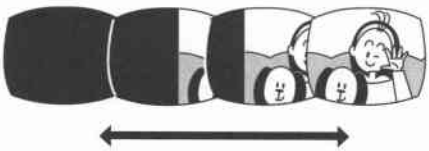
Wipe

When you start recording, the picture begins as a thin vertical line in the center of the screen which gradually expands sideways until it fills the whole of the screen. When you end a scene, the image is wiped from both sides of the screen.



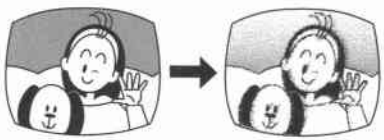
Scroll

When you start recording the picture appears from the right hand side of the screen and expands sideways until it fills the whole screen. When you end a scene, the image is wiped back off.



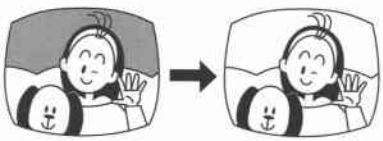
Art

Adds a paint-like effect, called solarization, to the image.



Black and White

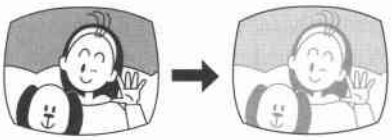
Records the image in black and white.



E

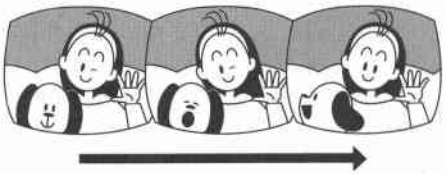
Sepia

Records a monochrome image with a sepia tint.



Strobe

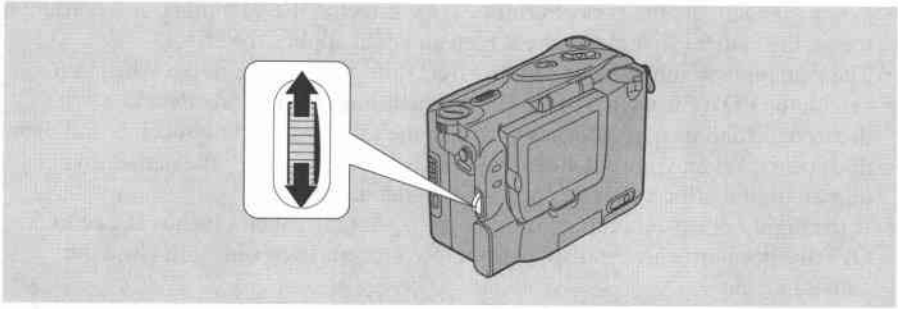
This effect converts on-screen action to a series of still images, giving an effect similar to slow-motion.



Selecting the effect

1. **Put the camera in record pause mode, with the POWER switch set to the [P] position.**
2. **Select the D. EFFECT option from the camera menu and choose one of the digital effects from list.**
   - When you close the menu, the name of the digital effect that you have chosen flashes in the display.
   - To turn digital effects off completely, choose the EFFECT ON (OFF) option (the flashing display disappears).

Turning your chosen effect on/off



You can turn your chosen digital effect on or off, both before and during recording, from the program menu (p. 35).

1. **Press in the select dial to open the program menu.**
2. **Turn the select dial up or down to align the arrow with the EFFECT OFF — ON (ON —OFF) option.**
3. **Press in the select dial to close the program menu.**
   - The name of your chosen digital effect is shown constantly in the display when it is turned on, and flashes when turned off. To turn digital effects of completely choose EFFECT OFF (ON) for the D.EFFECT option at the camera menu.

Reactivating the Fade, Scroll and Wipe Effects

You need to activate the fade trigger, scroll and wipe effects each time you wish to use them.

- When you start or stop recording, the scene will begin or end with the effect. (Sound and image fade together).
- The display will start to flash again. If you wish to activate it for use once more, turn the effect on at the program menu. You can turn it off before you use it at the program menu.

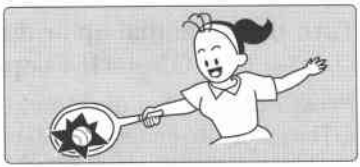
Notes:

- You cannot use digital effects when the camera is set to the ☐ (Easy Recording) program.
- You cannot use the Fade Trigger, Scroll and Wipe effects when the MOVIE/PHOTO switch is set to PHOTO.
- When you activate the Fade, Scroll or Wipe effect at the beginning of recording a scene, the camera first clears the screen and then applies the effect.
- The camera remembers your chosen effect until you change it, but when you switch the POWER switch to ☐ (Easy Recording) the digital effect is deactivated and its name flashes purple in the display for a few seconds and then disappears. When you switch the POWER switch back to P the name of your chosen digital effects flashes once more in the display.
- If the digital effects are turned off completely (at the camera menu) D.EFFECT OFF flashes purple in the display for a few seconds each time you close the camera menu.
- You can preview any of these functions (without actually recording) by removing the tape before you begin.

16:9 (Widescreen TV recording)

Produces images in the 16:9 format for playback on widescreen TVs.

MENU
(see p. 27)



1. Select 16:9 from the camera menu and turn the effect ON/OFF.

2. Press the MENU button once more to close the menu.

Notes:

- "16:9" is shown in the display when you switch the 16:9 effect on.
- You cannot use the 16:9 digital effect with the Easy Recording program.
- If you play back a recording made for 16:9 on a normal TV screen, the image will appear to be vertically "squashed" (compressed).

Audio Recording

Selecting the audio mode

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(see p. 27)

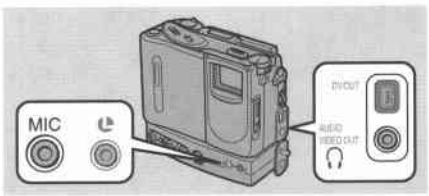
MV100 can record sound in two audio modes — 16 bit (48kHz, 2 channel) and 12 bit (32 kHz, 4 channel). The 16 bit mode produces the higher sound quality (slightly superior to CD) while the 12 bit mode records on two channels (stereo 1), leaving two channels free (stereo 2) for you to add new sound at a later date.

1. **To switch to the 12 bit mode open the camera menu and select AUDIO MODE.**
2. **Select "12 bit" and close the menu.**
   - "12 bit" is shown in the display for approximately 4 seconds.

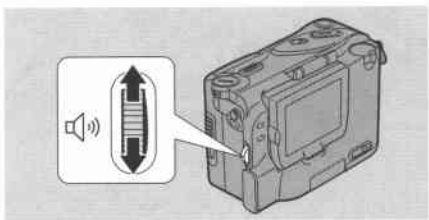
Notes:
- You cannot add new sound to a tape using this camcorder.
- For details of playing back a tape that has new sound on stereo 2, see page 63.

Headphones and external microphone

For greater creative control over audio recording, you can connect an external microphone to the camera via the DU-100 Docking Unit's MIC terminal. You can monitor the sound while recording by attaching stereo headphones to the camera's 🎧 terminal (this terminal also doubles as the Audio Video Out socket).



You can adjust the volume of attached headphones by turning the select dial when the camera is in playback mode (p. 17).
- A VOLUME bar appears in the display to indicate the current volume.
- The select dial also controls the speaker volume once you remove the headphones from the headphone socket (p. 18).

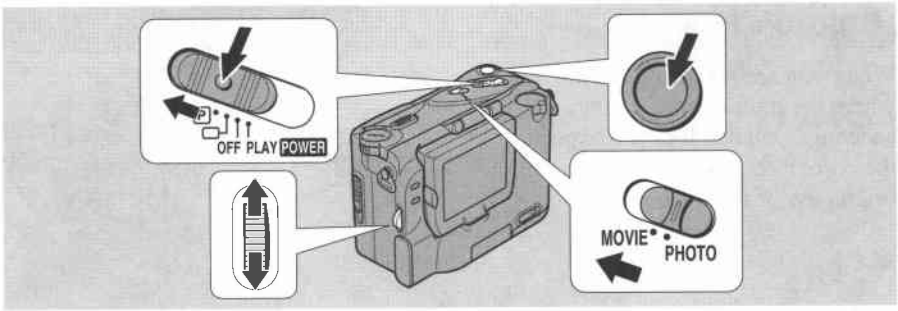


Wind screen

The camera has an automatic wind screen to prevent wind noise from interfering with the soundtrack. (It does not operate with an external microphone: WS OFF is displayed). Turn it off when you want the microphone to be as sensitive as possible.

1. **Open the camera menu and point the arrow at WIND SCREEN.**
2. **Select the OFF setting and close the menu.**
   - WS OFF is shown in the display.

Setting the Self-Timer



This is useful when you want to include yourself in the picture when recording.

MENU
(see p. 27)

▶SELF-TIMER··ON

1. **Put the camera in record pause mode, with the MOVIE/PHOTO switch set to MOVIE.**
2. **Turn the self-timer on from the SELF-TIMER option at the camera menu.**
3. **Press the start/stop button.**
   - The camera starts to record after a 10 second countdown period (or 2 secs from the wireless controller). The time remaining counts down in the display (e.g. "5 sec").
   - SELF-TIMER disappears from the display when recording begins.
4. **Press the start/stop button to end recording.**

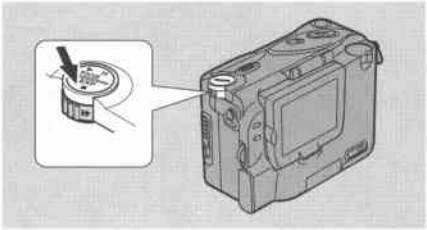
Notes:

- Once the countdown has begun, press the start/stop button to turn it off.
- Cancel the self-timer at any stage by switching the power off or sliding the LENS COVER switch to CLOSE.
- In photo mode slide the MOVIE/PHOTO switch to PHOTO, and then set the self-timer in exactly the same way. The camera automatically adjusts the focus and exposure 2 seconds before the countdown is complete. The green ● mark is also displayed at this time.
- You cannot set the self-timer while the camera is in mirror mode (with the LCD screen facing the same direction as the lens). Set the self-timer first, before lifting the LCD screen up to face the lens.

Adjusting Exposure Manually

Exposure lock

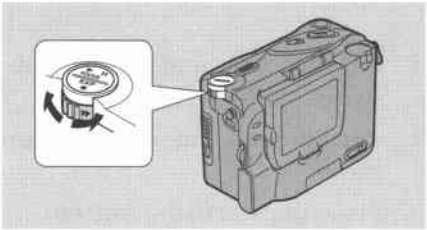
When you are recording in situations where the lighting may change suddenly, you can lock the exposure at the current level in order to control the brightness of the image.



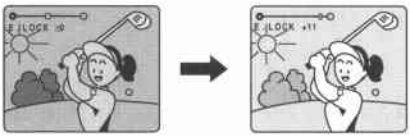
To lock the exposure, press the EXP side of the multi-switch. Press it again to return to the automatically set exposure level.

Exposure adjustment

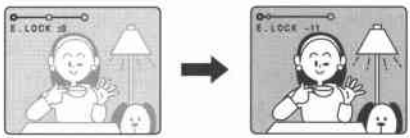
When the exposure is locked, you can adjust it manually, making the picture brighter or darker in order to deal with difficult lighting conditions, or to manipulate the mood of the scene. The camera's iris can be manually set to any position from fully closed to fully open.



To make the recorded image brighter, turn the multi-switch lever away from the lens (to a maximum of +11). This may be necessary if the background is very bright, or if the subject is lit from behind.



To make the recorded image darker, press the multi-switch lever towards the lens (to a minimum of –11). This may be necessary if the background is very dark, or if the subject is spotlit.



Notes:

- The standard exposure level depends on which recording program you have selected.
- Exposure lock is cancelled if you change recording programs, change the position of the POWER switch, or close the lens cover.
- You cannot use exposure lock or exposure/shutter speed adjustment when the program selector is set to the □ (Easy Recording) position.
- The number flashes in the display when you select the highest possible value in the current shooting conditions.

Shutter speed adjustment

You can increase or decrease the shutter speed before you record a scene at the camera menu.

1. **Make sure the camera is set to record pause mode, in the Auto recording program.**
2. **Select the SHUTTER option at the camera menu.**
3. **Turn the select dial up or down to select the shutter speed.**
   - The camera shows the current shutter speed in the display.
4. **Close the menu.**

Note:

- The camera returns to the AUTO shutter setting when you slide the POWER switch away from the [P] setting, or change the recording program.
- Some flicker may occur when filming in areas where the power supply frequency is 60Hz. If flicker occurs, set the shutter speed to 1/120th second.

Adjusting Focus Manually

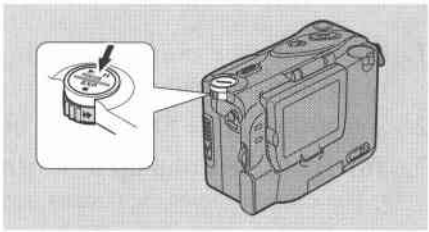
E

The camera can focus automatically. All you have to do is point it, and whatever is in the centre of the display will usually be in sharp focus. If it does not seem to be focusing well, it may be because the subject is not suitable for autofocus (p. 69).

It also has functions which give you more control over focusing.

Focus lock

Press the FOCUS side of the multi-switch to turn off autofocus. The focus remains locked at the point set by autofocus.
(AF OFF appears in the display.) You can now adjust the focus manually. Press the FOCUS side of the multi-switch again when you want to return to autofocus.

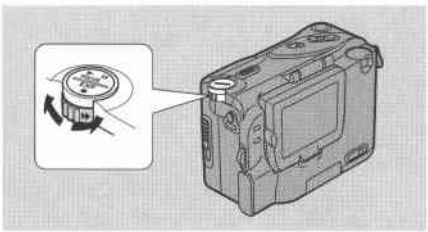


- If you zoom in on your subject after turning off autofocus, it may not stay in focus. It is generally best to adjust the zoom first, and then the focus.

Manual focus

Use the multi-switch lever to set the focus.

- Turn it towards the lens to move the focus further away.
- Turn it away from the lens to bring the focus nearer.

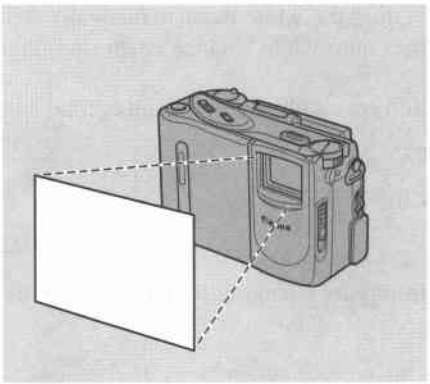


You can also adjust the focus temporarily without turning autofocus off — in this case turn the multi-switch lever to set the focus (without pressing the multi-switch down to turn the autofocus off/lock the exposure) and autofocus will start again as soon as you release the lever.

Notes:

- In the ☐ (Easy Recording) program you can adjust the focus temporarily, but you cannot turn off autofocus.
- The manual focus setting is cancelled if you change the position of the POWER switch.

Setting the White Balance



The camera's auto white balance system compensates for a wide range of lighting conditions. Although slight variations are unavoidable, colours will appear natural in virtually every situation.

In some cases, you will get better results by setting the white balance yourself, or using one of the two preset modes:

- Indoor Mode
  - Under halogen or studio/video lighting
  - Subject is of one dominant colour
  - Close ups
- Outdoor mode
  - In daylight, especially for close-ups and where the subject is of one dominant colour.

MENU
(see p. 27)

1. **Open the camera menu and point the arrow at WHITE BAL.**
2. **a) For the Indoor, Outdoor or Auto settings simply choose the setting.**
   - / appears in the display when you set the white balance to indoor/outdoor mode.

   b) To set the white balance yourself, point the camera at a white object (such as a sheet of paper) and zoom in until it fills the display, then select SET.
   - The display flashes then remains lit.
   - Depending on the light source, the flashing may at times continue. The result will remain better than with the auto setting and you can continue recording.
3. **Close the menu.**

E

Setting the white balance manually will probably work better than auto white balance when shooting:

Subjects with one dominant colour, such as sky, sea or forest.

Close-ups

In rapidly changing lighting conditions

In places lit by certain types of fluorescent or mercury vapour lights.

Notes:

- Turn the digital zoom off (if neccessary) to set a more accurate white balance.
- If the lighting conditions change, reset the white balance by first returning to the AUTO setting, and then reselecting SET.
- Try to record with light from a single source. Correct white balance cannot be obtained for two types of lighting at once.
- You cannot set the white balance or choose the indoor/outdoor mode when the program selector is set to the □ (Easy Recording) program.
  The camera returns to the AUTO setting when you slide the POWER switch away from the P setting.
- When the LENS COVER switch is set to CLOSE, the current white balance setting remains in the memory.
- If you shoot with studio/video lighting, use the ☼ (indoor) mode.
- During normal outdoor shooting, setting to AUTO will provide better results.

Displaying Data Code

A data code, containing the date and time the recording was made and other camera data (shutter speed and exposure settings) is automatically recorded on a special data section of the tape.

During playback, the date code can be displayed or hidden while the camera is in, play, slow or still mode.

Date and time data (only) can be displayed during fast forward, rewind, reverse playback, forward and reverse x2 playback.

Press the wireless controller's DATA CODE button.
- Press it once to display, once more to hide it.

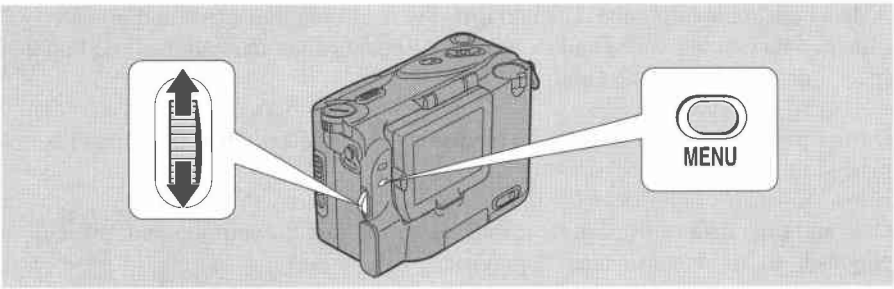
You can also choose which type of data code to display — either the date/time, camera data or both.

(see p. 27)

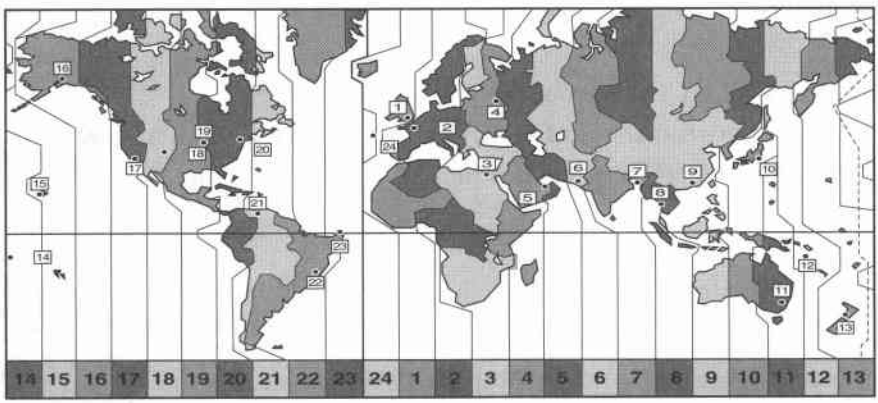
1. **Select DATA CODE from the playback menu.**
2. **Choose between DATE/TIME, CAMERA DATA and CAM. & D/T.**
3. **Press the MENU button once more to close the menu.**

Notes:
- To avoid accidental recording, make sure that you slide the tab on the cassette so that it exposes the hole (the switch position is usually labelled SAVE or ERASE OFF).
- The data code will read "— — —" in the following situations:
  - When playback is stopped.
  - During playback of a blank section of tape.
  - If the tape was recorded before entering the date and time in the camera's memory.
  - If the tape was recorded on a camera without a data code function.
  - If noise or tape damage prevents the data code from being read.
- Data code is not displayed during high speed playback modes.
- If a recording made on MV100 is played back on a different DV camcorder, the data code may not be displayed correctly.
- Contents of dadt code display may change according to D/TIME SEL. or DATE CODE settings made on the menu (P. 69).

Setting the World Clock



There is no need to reset the date and time when you travel to another time zone; use the camera's World Clock to make sure the display shows the correct time when you play back your recordings. Set the base time zone that agrees with the date and time you have set to the camera. Then, when you play back a recording, simply set the time zone the recording was taken in and the camera adjusts the time for you.



Time zone	
1. London	13. Wellington
2. Paris	14. Samoa
3. Cairo	15. Honolulu
4. Moscow	16. Anchorage
5. Dubai	17. Los Angeles
6. Karachi	18. Denver
7. Dacca	19. Chicago
8. Bangkok	20. New York
9. Hong Kong	21. Caracas
10. Tokyo	22. Rio de Janeiro
11. Sydney	23. Fernando de Noronha
12. Solomon	24. Azores

- Choose between the time zones (above) at the playback menu.

Selecting the base zone

1. **Set the camera to playback mode, open the playback menu and select the BASE ZONE option.**
2. **Move up or down the list of time zones by turning the select dial and press in the dial to select the option that represents your base time zone.**
   - If you select the blank display, nothing is selected and you are unable to select the recording zone option.
3. **Close the menu.**
   - There is no need to change the setting, unless your base zone changes.

Selecting the recording zone

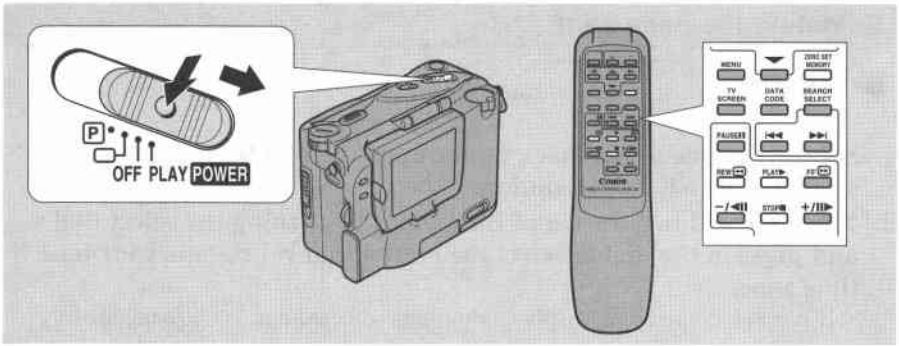
Select the recording zone when you want to play back a tape that was recorded in a different time zone.

1. **Set the camera to playback mode, open the playback menu and select the REC ZONE option.**
2. **Move up or down the list of time zones by turning the select dial and press in the dial to select the option that represents the time zone where you made the recording.**
   - The S mark indicates summer time – choose this option if the place you visited was on summer time when you made the recording.
3. **Close the menu.**
   - The time and date will now match local time at the place where you made the recording and the camera shows the name of the recording zone in the display.
4. **When you have finished viewing the recording of a different time zone, be sure to return the REC ZONE setting to the same time zone as your base zone so that the base zone date and time is shown during playback.**
   - The name of the recording zone disappears from the display.

Notes:

- The recording can be edited to a VCR showing the local time, but when editing via the digital terminal only the original date and time can be recorded. In this case, you need to reset the date and time before you make a recording.
- The World Clock displays will only appear when the data code is shown (p. 51).
- If you make a change to the base zone setting, the recording zone setting is reset automatically.
- When you use date search, the camera looks for the change in date based on the adjusted time.

Returning to a Pre-Marked Position



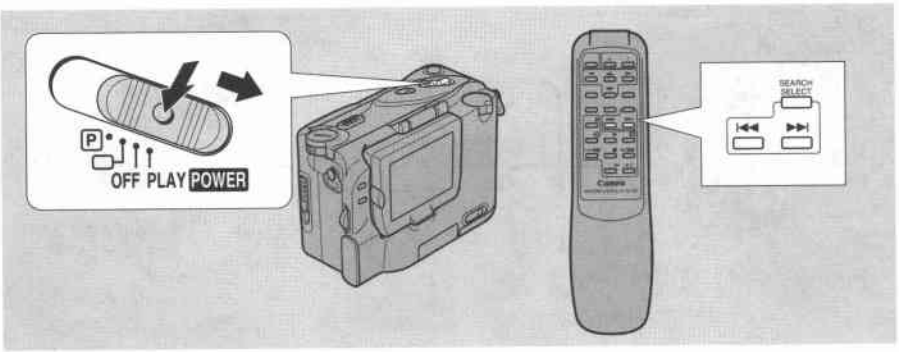
Use the wireless controller to go back to a pre-determined point on a tape following playback.

1. **Press the ZERO SET MEMORY button during playback at a point you want to return to later.**
   - ZERO SET MEMORY appears in the display, and the time code is replaced by a tape counter that is set to zero.
2. **When you have finished playback, turn the multi-switch lever to fast forward or rewind the tape. The tape stops automatically when it reaches the zero set position.**
   - ZERO SET MEMORY disappears from the display and the time code reappears.

Notes:

- Press the ZERO SET MEMORY button once more to cancel the zero set memory before you forward/rewind the tape.
- The zero set memory may not function correctly where there is a break between recordings on the tape.
- You can also use zero set memory to mark a position on a tape in record pause mode. When you then play back the tape, pressing rewind will take you back to the pre-marked position.
- If you remove the tape while the zero set memory is set, the memory is cancelled and the tape counter reverts to timecode.

Searching the Tape (Photo Search/Date Search)



Move quickly through still pictures recorded anywhere on a tape (photo search) or between different days of recording (date search).

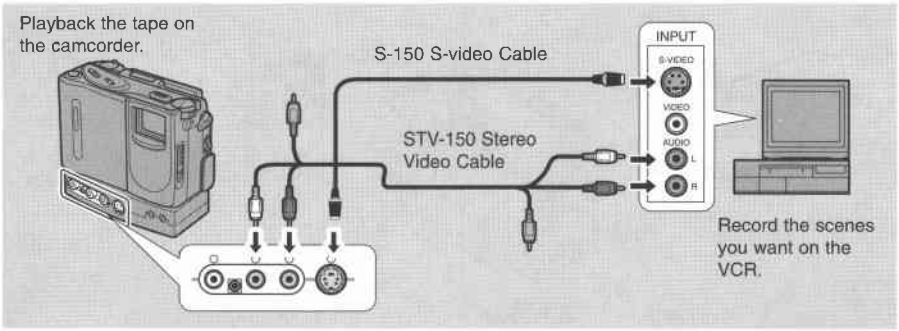
- You can only use this function from the Remote Controller.

1. **Press down and slide the POWER switch to playback.**
   - Press the SEARCH SELECT button to choose between photo/date search.
   - PHOTO SEARCH or DATE SEARCH is shown in the display for a few seconds.
2. **Press the ⏮ and ⏭ buttons to move backwards or forwards through the still pictures or between different days of recording.**
   - Press once to move to the start of the previous/next still picture or day on the tape.
   - For photo search you can press more than once to move to the corresponding still picture (up to a maximum of 10 times), e.g. press the ⏭ button 5 times to move forward 5 still pictures.
   - PHOTO-SEARCH/DATE SEARCH appears in the middle of the display alongside the ⏮ or ⏭ /⏪ or ⏩ mark and, for photo search, the number of photos to search through.

Notes:

- Press the ■ (stop) side of the multi-switch to end your search.
- If you begin a search very close to the start of a recorded still picture during photo search, the camera may skip straight past it.
- A date cannot be identified if the total recording time on that day was less than one minute.
- Date search playback may start just before or after the beginning of the located section.
- If the data code is not displayed correctly you will not be able to operate the date search correctly.
- When you have set the REC ZONE for the World Clock, date search looks for the change in date based on the adjusted time.

Editing to a VCR



By connecting the camera to another VCR, you can edit your recordings in order to remove unwanted scenes — or combine different shots to create your own video productions.

Preparations

1. **Connect the camera to the VCR.**
   - See "Connections for Playback on a TV screen" on p. 20.
2. **Prepare the TV and VCR.**
   - Turn on the TV and set it to the video channel, or set the TV/VIDEO selector to VIDEO.
   - Turn on the VCR, and set its input selector to LINE. Load a blank cassette, and put the VCR in record pause mode.
   - See your TV and VCR instruction manuals for details.
3. **Slide the camera's POWER switch to PLAY, and load your recorded cassette.**

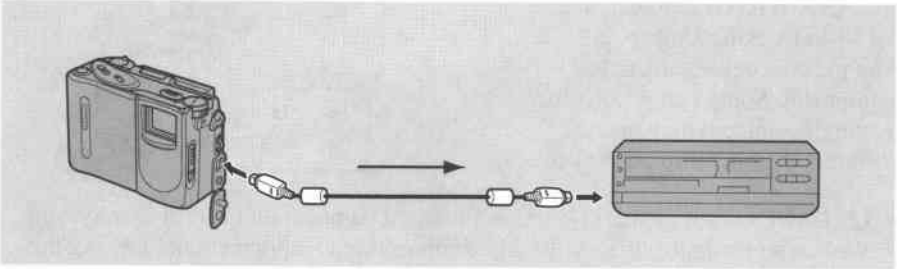
Basic Recording

1. **Find a point on your recorded cassette slightly ahead of the section you want to copy.**
2. **Start to play it back while you monitor the picture on the TV.**
3. **Start recording on the VCR as soon as the section you want to copy appears on the screen.**
4. **Pause the VCR at the end of the section you want to copy, then stop playback on the camera.**
5. **Repeat steps 1 to 4 until your edited recording is complete.**

Note:

- The quality of the edited tape will be slightly lower than that of the original.

DV terminal/connections



Digital video equipment fitted with this terminal lets you edit, copy and transfer data digitally, with virtually no generation loss in image and sound quality. It allows you to transfer video stills directly to a PC (fitted with the DV Capture Kit DK-1) for image enhancement and printout.

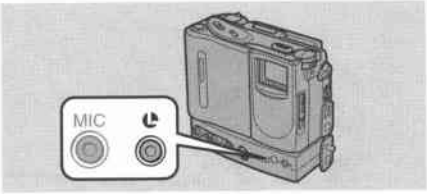
Use a Canon CV-150F DV cable to connect two digital devices together. When you are recording, make sure you connect the cable to the MV100 before connecting the other end of the cable to the recording device.

- The image displayed by the camcorder that is being recorded to (for example on its LCD screen, an attached TV, or in its viewfinder) may become distorted during digital dubbing. The actual recording on the tape, however, is not affected.
- Blanks between recordings on the playback tape are recorded as anomalous images on the tape that is being recorded to.
- When operating the camcorder with the DV cable connected (between MV100 and another device) do not turn the power off.

E

REMOTE terminal

The REMOTE terminal on the DU-100 Docking Unit (p. 20) allows you to connect the camera to equipment. Some buttons on other editing equipment may operate differently from those on the camera.



- (LANC) is a trademark. It stands for Local Application Control Bus System.
- We cannot guarantee the results when connecting to equipment not bearing the LANC symbol.

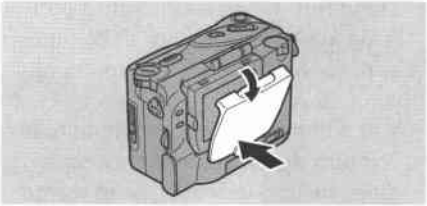
Copyright signal

Certain pre-recorded software tapes are copyright protected. If you try to play back such a cassette, the camera displays a blank blue screen; you cannot view the contents of the cassette.

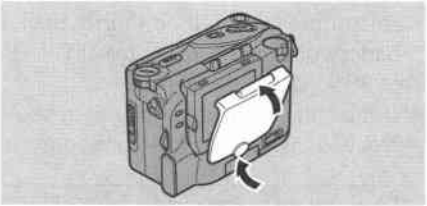
Preparing the Camera

Remove the LCD cover

- Remove the cover by pushing it in at the center and pulling it off from the top first.

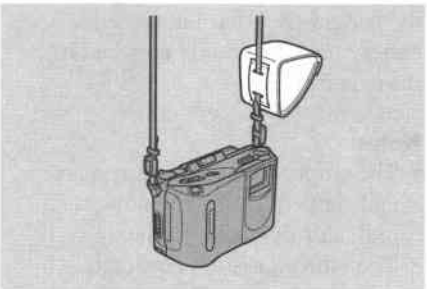


- Replace the cover when you are not using the LCD screen, clipping it on to the screen base first.



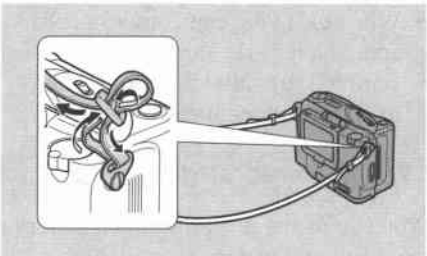
Attaching the FU-100 Finder Unit case

- If you plan to use the Finder Unit case, make sure that you attach it to the strap before attaching the strap to the camera.
- Please the Finder Unit in the case when not in use.



Attach the shoulder strap

- For extra security and portability, attach the shoulder strap before using the camera.
- Pass the ends through the attachment bars and adjust the length as shown.
- Be sure to test the strap to check that it is properly attached before using it to carry the camera.



Notes on Using the Batteries

E

Charging and recording times

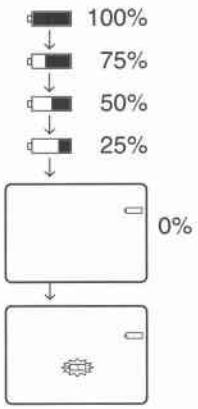
- These times vary — the safest policy is always to have two or three times as many battery packs as you think you will need.
- You will get more recording time if you turn the camera off between shots, instead of leaving it in record pause mode.

Battery pack	BP-608
Time needed for full recharge	1 hr. 30 min.
Maximum recording time	50 min.

- Recording time will be shorter than usual at low temperatures. You can use the battery pack between 0° to 40°C (32° and 104°F), but it works best between 10° to 30°C (50° and 86°F).
- If the battery pack starts to give you much less recording time than usual, it has reached the end of its life and must be replaced.

How much power is left?

The indicator in the display shows you approximately how much charge the battery pack has left (when a battery pack is directly attached to the camera):



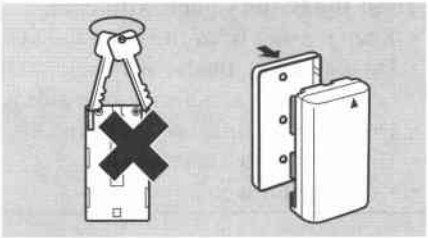
Notes:

- The empty battery mark appears and starts to flash. The power indicator light also flashes.
- The indicator is not constant — different levels will be shown when you subject the battery pack and camcorder to different conditions.
- When using the camcorder in cold areas such as ski slopes, the symbol starts blinking sooner than in warm temperatures.

When to recharge

You can recharge a lithium ion battery pack whenever it is convenient. Unlike a conventional battery pack, it does not have to be fully discharged first. However, as the battery pack will naturally discharge itself over time, it is best to charge it the same day you plan to use it, or the day before.

Taking care of the battery pack



Always attach the terminal cover.

- Do not allow any metal objects to touch the terminals, as this can cause a short circuit and damage the battery pack. Attach the terminal cover whenever the battery pack is not being used.

Keep the terminals clean.

- The camera, adapter or battery pack will not work properly if the terminals are dirty. Check them before use, and wipe them with a dry cloth or tissue if necessary.

Storing the battery pack

- If you do not use a battery pack for a period of more than a few months any remaining charge may cause damage to the battery pack, and reduce usage time. To prevent damage therefore, aim to use a battery pack's complete charge before storage.

Charging the backup battery

A rechargeable lithium battery fitted in the camera unit allows the camera to remember settings such as the date and time, even when the battery pack is disconnected. It is automatically recharged when you attach a power source to the camcorder.

When you first use the camera, bring the backup battery to full charge by connecting a power source to the camera overnight. You do not need to turn the camera on for charging to take place.

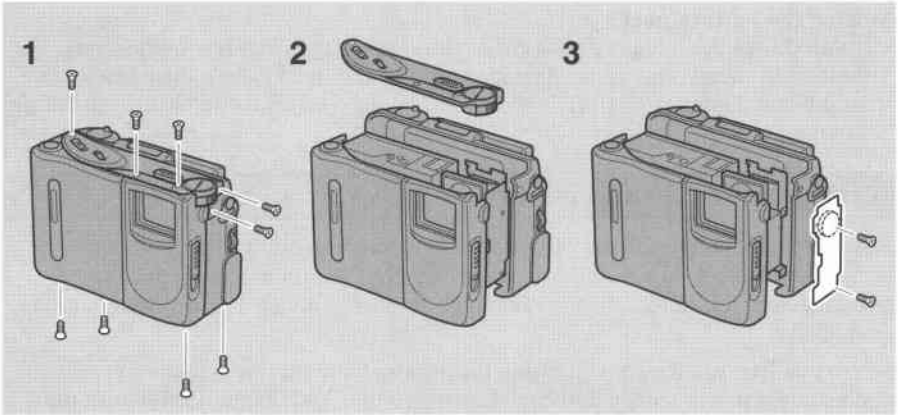
- If you use the camcorder regularly, the back-up battery will remain charged. If it is stored, however, it slowly discharges and eventually (in excess of 6 months from being fully charged) there will be insufficient power to maintain the date and time. In this case, connect a power source to the camcorder, reset the date and time (p. 31) and recharge the back-up battery (as above).

DANGER!

Treat the battery pack with care.

- Keep it away from fire (or it might explode).
- Do not expose the battery pack to temperatures greater than 140°F (60°C). Do not leave it near a heater, or inside a car in hot weather, for example.
- Do not try to disassemble or modify it.
- Do not drop or knock it.
- Do not get it wet.

Recycling the internal rechargeable battery



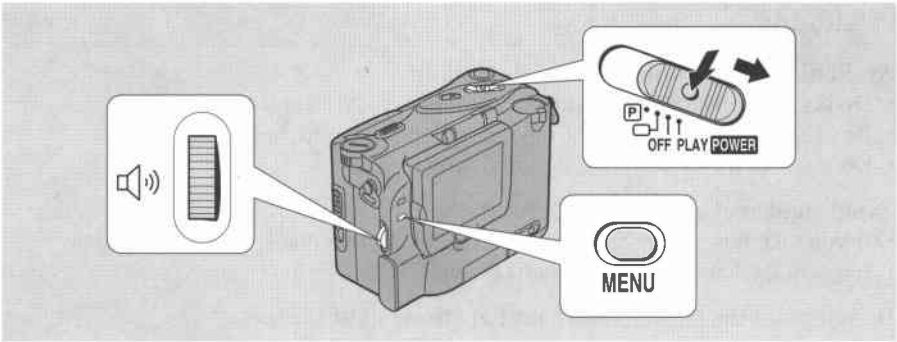
If you should dispose of your camcorder, first remove the internal rechargeable battery for recycling according to the recycling system of your country.

1. **Remove the camcorder cover screw.**
2. **Take off the camcorder cover.**
3. **Remove the screw that holds the circuit board in place, and dispose of the board alongside the attached battery**

Note:

- When removing the lithium battery for any reason other than disposal of the video camera, do not open the cover on the camcorder.

Setting the Audio Mix



When you play back a tape that was recorded in 12 bit mode, you can set the audio output: stereo 1 (the original sound), stereo 2 (any new sound, dubbed to the tape after recording), or a mixture of the two.

- Audio from the 16 bit mode only contains stereo 1 sound and so you cannot/do not need to select the audio mix. The same is true for the 12 bit stereo 1 mode, unless new sound has been added post-recording.

1. Set the camera to playback mode.

MENU
(see p. 27)

A.MONITOR···▶MIX/VARI.

2. Choose the output.

- Open the playback menu and point the arrow at A.MONITOR.
- Select the output and return to the main menu:
  - STEREO1 for just stereo 1.
  - STEREO2 for just stereo 2.
  - MIX/FIXED when you want an equal mix of stereo 1 and 2.
  - MIX/VARI. when you wish to mix the balance between stereo 1 and 2.

3. Mix the balance.

- If you chose MIX/VARI. (above) you can now select the MIX BALANCE option from the menu and adjust the mix between stereo 1 and 2. A bar showing the mix appears on the screen as a guide.

Note:

- When you have chosen the output, FIXED or VARIABLE is shown in the top left of the display for a few seconds. If you turn the power off the output (and display) is set to "STEREO1".

Maintenance

E

Cautions

Avoid high temperatures and high humidity.
- Do not leave the camera inside a car in hot weather, for example.
- Be careful of heat radiating from video lighting equipment.
- Do not take the camera into a humid room.

Avoid sudden changes in temperature.
- If you take the camera from a cold place to a warm place, condensation may form on the lens and internal parts (see p. 67).

Do not point the lens or finder unit at strong light sources.
- Never point it at the sun, and do not leave it aimed at a bright subject.
- Be especially careful when leaving the camera on a tripod.
- Never look through the Finder Unit directly at the sun or other bright light sources (this especially applies when the Finder Unit is not attached to the camere).

Avoid magnetic or electric fields.
- Do not use the camera close to TV transmitters, portable communication devices or other sources of electric or magnetic radiation. They may cause picture interference, or permanently damage the camera.

Do not expose the camera to water.
- Cover the camera when you are recording in rain or mist.
- There is a risk of electric shock if water gets inside the camera — contact qualified service personnel as soon as possible.

Protect the lens.
- Sand and dust can damage the lens — be especially careful on windy days.

Handle the camera gently.
- Vibration or shock can cause damage.
- Do not use the finder unit or LCD screen as a carrying handle.

Do not disassemble the camera.
- This is very dangerous as there is a risk of electric shock — if the camera does not function properly, take it to qualified service personnel.

Storage

If you do not intend to use the camera for some time, store it in an area which is free of dust and moisture, and where the temperature is no higher than 30°C (86°F). After storage, check each part and function of your camera to make sure everything is still working properly.

Note:
- These cautions also apply to accessories such as battery packs and cassettes.

LCD (brightness/backlight)

- Adjust the brightness of the display and the strength of the backlight at the camera or Playback menu.
- In bright conditions, set the backlight to BRIGHT to make the display easier to see.
- If the displays appear too light or too dark in general, adjust the brightness of the screen.

1. **Open the Camera or Playback menu.**
2. **a) Adjust the backlight by choosing between NORMAL and BRIGHT at the BACKLIGHT option.**
   b) Adjust the overall brightness by choosing the BRIGHTNESS option and turning the select dial up or down (a bar showing the level appears in the screen as a guide).
3. **Close the menu.**

Note:

- When the backlight is set to BRIGHT it uses more battery power. To save power, leave it set to NORMAL. (It is reset to NORMAL when you turn the camera off using the POWER switch.)

LCD

- Clean the LCD screen using a commercially available glass cleaner.
- Where there is a big change in temperature, moisture may form on the surface of the screen. Wipe clean with a soft, dry cloth.
- At low temperatures the display may appear to be much darker than usual. This is not a fault, and as the screen warms up the display will return to normal.

Camera body and lens

- Use a soft, dry cloth to clean the camera body or lens. Never use chemically treated cloth or volatile solvents such as paint thinner.

Video heads

- When mosaic-like noise appears on the playback picture, the video heads may be dirty. When the video heads are badly contaminated, the camera may show a blank blue screen.

- Clean the video heads using Canon's DVM-CL Digital Video Head Cleaning Cassette. If the "noise" remains, repeat the cleaning (up to maximum of five times).
- Do not use a wet-type cleaning cassette, as this can cause damage.

E

Using the camera abroad

Power sources

- You can use the compact power adapter to operate your camera and charge battery packs in any country where the electricity supply is between 100 and 240 V AC, 50/60 Hz. Contact your Canon dealer for information about plug adapters for overseas use.

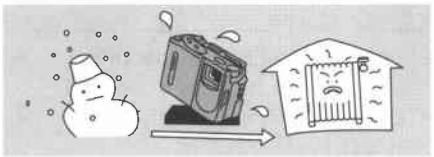
TV playback

- Although you can always play back your recordings on the LCD screen, your camera can only be connected to TVs which use its PAL system. This TV system is used in the following countries:
  Algeria, Australia, Austria, Bangladesh, Belgium, Brunei, China, Denmark, Finland, Germany, HongKong, Iceland, India, Indonesia, Ireland, Italy, Jordan, Kenya, Kuwait, Liberia, Malaysia, Malta, Mozambique, the Netherlands, New Zealand, Noth Korea, Norway, Oman, Pakistan, Portugal, Qatar, Sierra Leone, Singapore, South Africa, Spain, Sri Lanka, Swaziland, Sweden, Switzerland, Tanzania, Thailand, Turkey, Uganda, United Arab Emirates, United Kingdom, Yemen, former Yugoslavia, Zambia.

Condensation

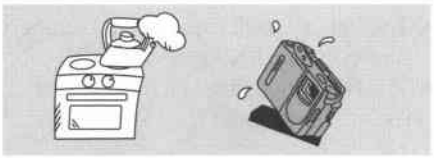
Condensation may form on the camera when it is moved from a cold place to a warm place. Using the camera while condensation is present can damage both the tape and the camera.

Condensation may become a problem:

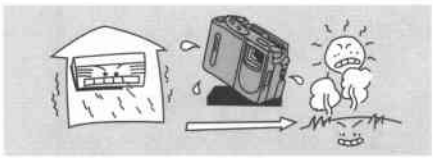


When you bring the camera from a cold place to a warm room

When a cold room is heated rapidly



When the camera is left in a humid room



When the camera is taken from an air-conditioned room to a warm, humid place

Protecting the camera from condensation

- Before you bring the camera to a warm or humid place where condensation is likely to be a problem, unload the cassette and put the camera in a plastic bag. Wait until the camera reaches room temperature before you take it out of the bag.

What happens when condensation is detected

- The power indicator flashes and the mark flashes in the display. If there is a cassette in the camera, it stops automatically and EJECT is shown in the display.
- The camera may not detect the condensation immediately — the condensation warning may not start flashing for 10 to 15 minutes.
- You cannot load a cassette when condensation is detected.

What you should do

- Remove the cassette, leave the cassette compartment open, and turn the camera off.
- Leave it in a dry place until the condensation evaporates. After the condensation warning stops flashing, wait at least another hour before trying to use the camera.

Troubleshooting

E

Refer to this checklist first if you have any problems with your camcorder. Possible explanations are given for each problem on the list — turn to the page numbers in brackets for more information.

Make sure that the camera is properly connected if you are using it with a TV or VCR. Consult your dealer or service outlet if problems persist.

Recording/Playback

Problem	Cause and/or what to do about it
? Nothing happens when I press the buttons	• The camera is not switched on (p. 11, 17). • The cassette is not loaded or is set for erasure prevention (p. 9-10). • The tape has reached the end. • The battery pack is exhausted or not properly attached (p. 6, 7, 60). • The function cannot be used in that recording program (p. 35).
? The camera turned itself off.	• The camera was in record pause mode for more than about five minutes (p. 11). • The battery pack is exhausted (p. 7).
? The start/stop button doesn't work.	• The POWER switch is not set to ☐ or P (p. 11). • The LENS COVER switch is set to CLOSE (p. 11). • The cassette is not loaded or is set for erasure prevention (p. 9-10). • The tape has reached the end.
? There's no picture in the display.	• The POWER switch is not set to ☐ or P (p. 11). • The LENS COVER switch is set to CLOSE (p. 11).
? There's a blank blue screen in the display.	• You are attempting to play back from a copyright protected cassette (p. 58). • The tape heads are badly contaminated (p. 65).

? The camera won't focus.

- The camera is on manual focus (p. 48).
- The finder unit lens needs adjusting (p. 15).
- The lens is dirty (p. 65).

E

Note:

Some subjects are not suitable for autofocus. In these situations, you will often get better results using manual focus (see p. 48). Focus on something which is about the same distance away, lock the focus, and then point the camera at your original, hard-to-focus subject.

Horizontal stripes

Many subjects at different distances

Behind glass

Without much contrast (e.g. a white wall)

Reflective surfaces (e.g. shiny car surfaces)

Fast moving objects

Slanted subjects

Dark subjects

Night scenes

? Contents of data code display may vary.

- Check settings made for date/time.

Note:

Contents of data code display may change according to D/TIME SEL. or DATA CODE settings made on the menu.

Setting the "Data Code" / Setting "Select Date/Time"	"Date/Time"	"Camera data"	"Date/Time & Camera data"
"Date"	1.JAN.1998	F32 1/2000	F32 1/2000 1.JAN.1998
"Time"	12:00:00 AM	F32 1/2000	F32 1/2000 12:00:00 AM
"Date & Time"	12:00 AM 1.JAN.1998	F32 1/2000	F32 1/2000 12:00AM 1.JAN.1998

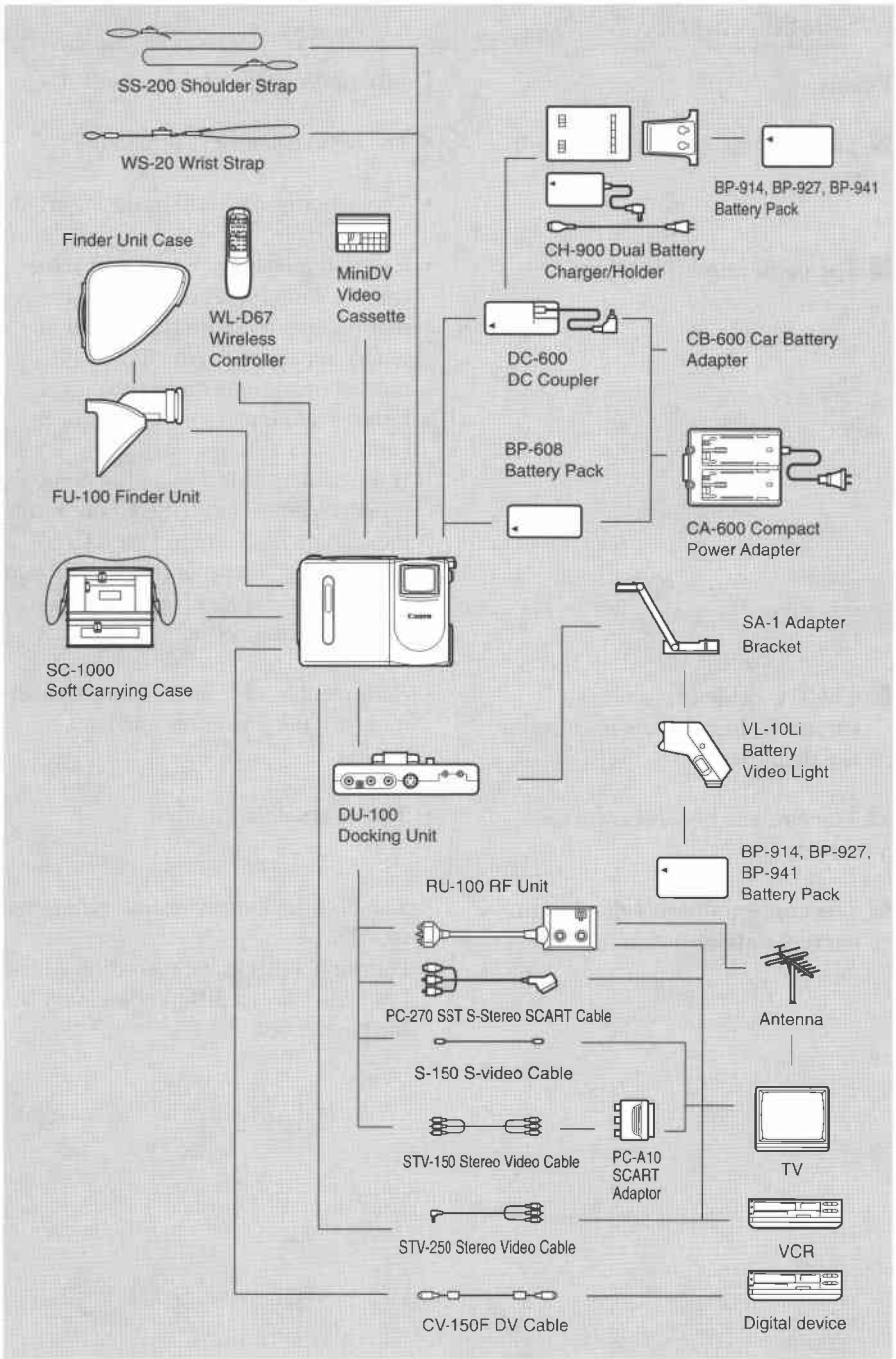
Recording/Playback (Contd.)

Problem	Cause and/or what to do about it
The ▶ (play) button doesn't work.	• The POWER switch is not set to PLAY (p. 17) • The cassette is not loaded (p. 9). • The tape has reached the end.
There's a bright stripe on the screen.	• When recording in dark places a bright light in the scene or in the vicinity of the camera may cause a vertical light bar ("smear") to appear. This is a normal feature of camcorders.
The playback picture is rough (with mosaic-like noise).	• The video heads need cleaning (p. 65).
There's no picture on the TV screen, even though the tape is moving.	• The video heads need cleaning (p. 65). • The TV/VIDEO selector on the TV isn't set to VIDEO (p. 20). • If connected using the optional RF unit the video channel has not been selected. • The screen displays are set to OFF at the DISPLAYS option of the playback menu (p. 27).
There's no sound coming from the speaker during playback.	• The speaker volume is set to the minimum level (p. 18). • Headphones are being used.

Miscellaneous

Problem	Cause and/or what to do about it
The wireless controller doesn't work.	• The remote sensor is turned off (p. 30). • The batteries are dead or not inserted.
The camera malfunctions.	• External interference may cause the camera's microprocessor to malfunction temporarily. If random letters appear in the display or if normal operation is interrupted, remove and then replace the power source. • If the camera still does not operate properly, press the RESET button (on the camera body behind the LCD panel) using the tip of a ball point pen (or similar): camera functions return to their default setting.
The DV cable is connected correctly, but there's nothing in the display.	• Remove the cable and then reconnect it or turn the power off and back on again.
The camera becomes warm during use.	• This is not a malfunction.
The camera doesn't display the correct date and time.	• The back-up battery needs recharging (p. 61). • During playback, the recording zone has been set to a different location to the base zone.

The MV100 System Diagram (Availability differs from area to area)



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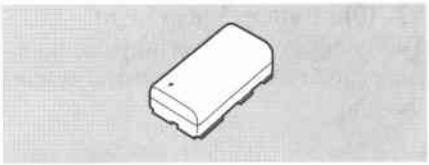
Additional Information

Optional Accessories

Battery pack BP-608
For use with the MV100. It is also available as an optional accessory.

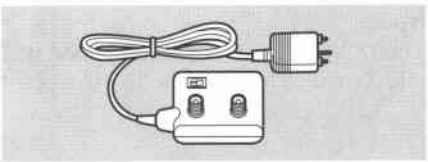


CB-600 Car Battery Adapter
Power your camera, or recharge battery packs on the move. The car battery adapter plugs into your car's cigarette lighter socket and runs off a 12-24 V DC negative ground battery.

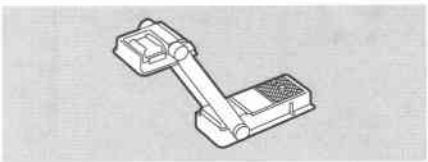
AVAILABLE SUMMER 1998

SC-1000 Soft Carrying Case
This lightweight bag keeps the camera within easy reach without weighing you down or getting in the way.

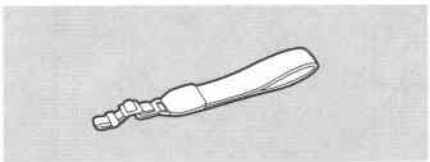
RU-100 RF Unit
This optional converter allows the camera to be connected to the antenna terminal of any TV. It can be a useful accessory while traveling, as you may need it if you want to connect the camera to a TV in your hotel room.



SA-1 Adapter Bracket
Attaches a video light or microphone securely to the camera.



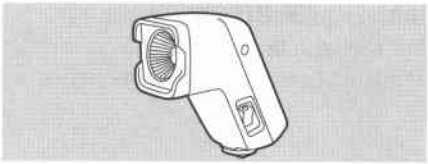
WS-20 Wrist Strap
Provides an extra measure of protection for active shooting.



E

VL-10Li Battery Video Light

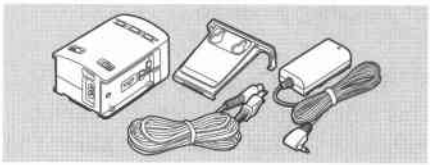
This compact yet powerful video light can be used for both indoor and outdoor shooting.



- Lithium ion battery packs are used to power the light. These differ from the battery packs used to power the MV100, and can be purchased as optional accessories. To charge them the optional accessory CH-900 Dual Battery Charger/Holder, or CA-900 Compact Power Adapter is required. Approximate usage times are as follows:
  BP-914: 50 min BP-927: 100 min BP-941: 160 min

CH-900 Dual Battery Charger/ Holder

This holds two battery packs and can charge them both consectively.
It can then be connected directly to the ZR to give twice the playback time.



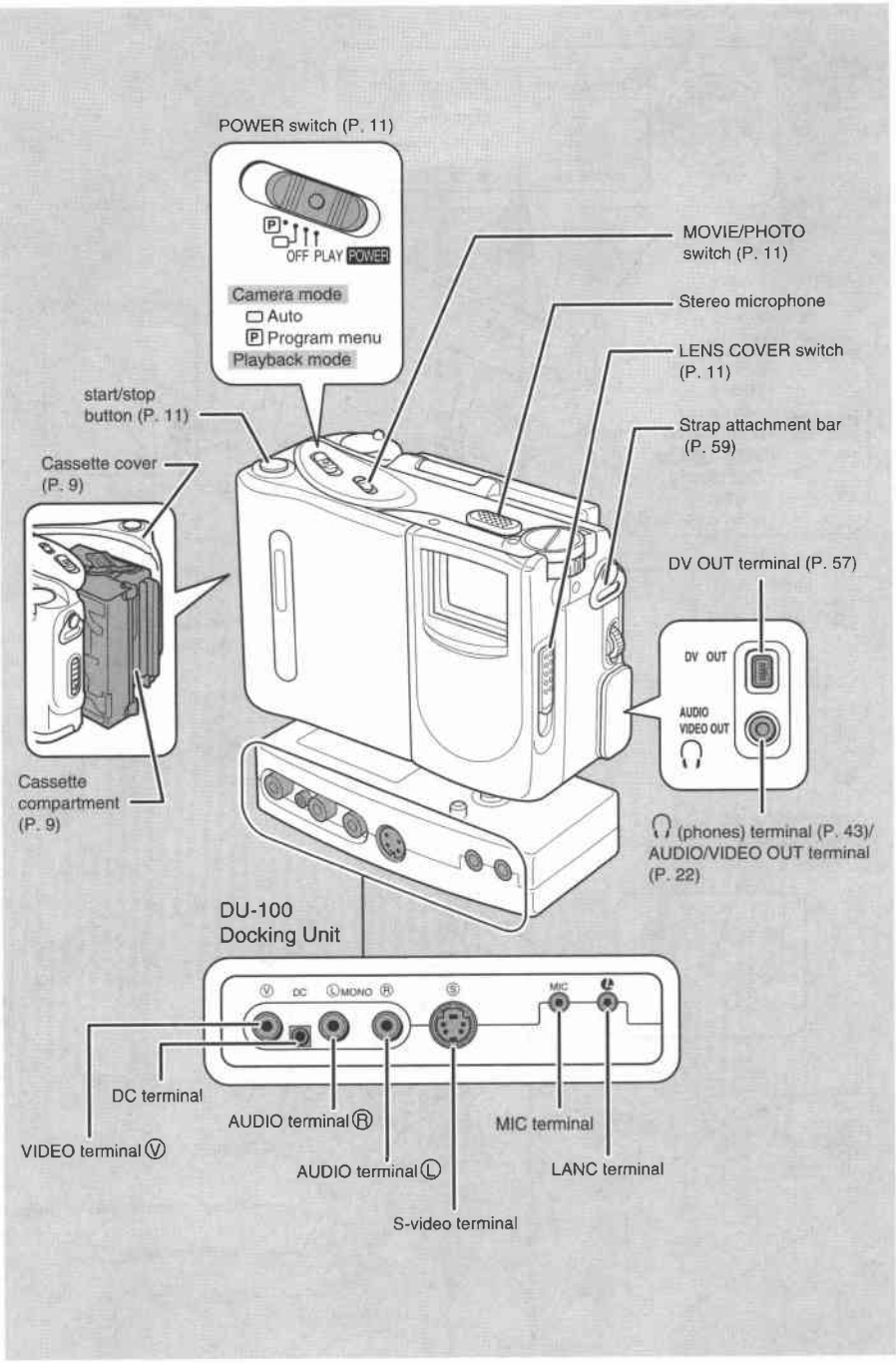
The lithium ion battery packs used with the CH-900 (BP-914, BP-927, BP-941) differ from the battery pack used with the MV100, and can be purchased as optional accessories.

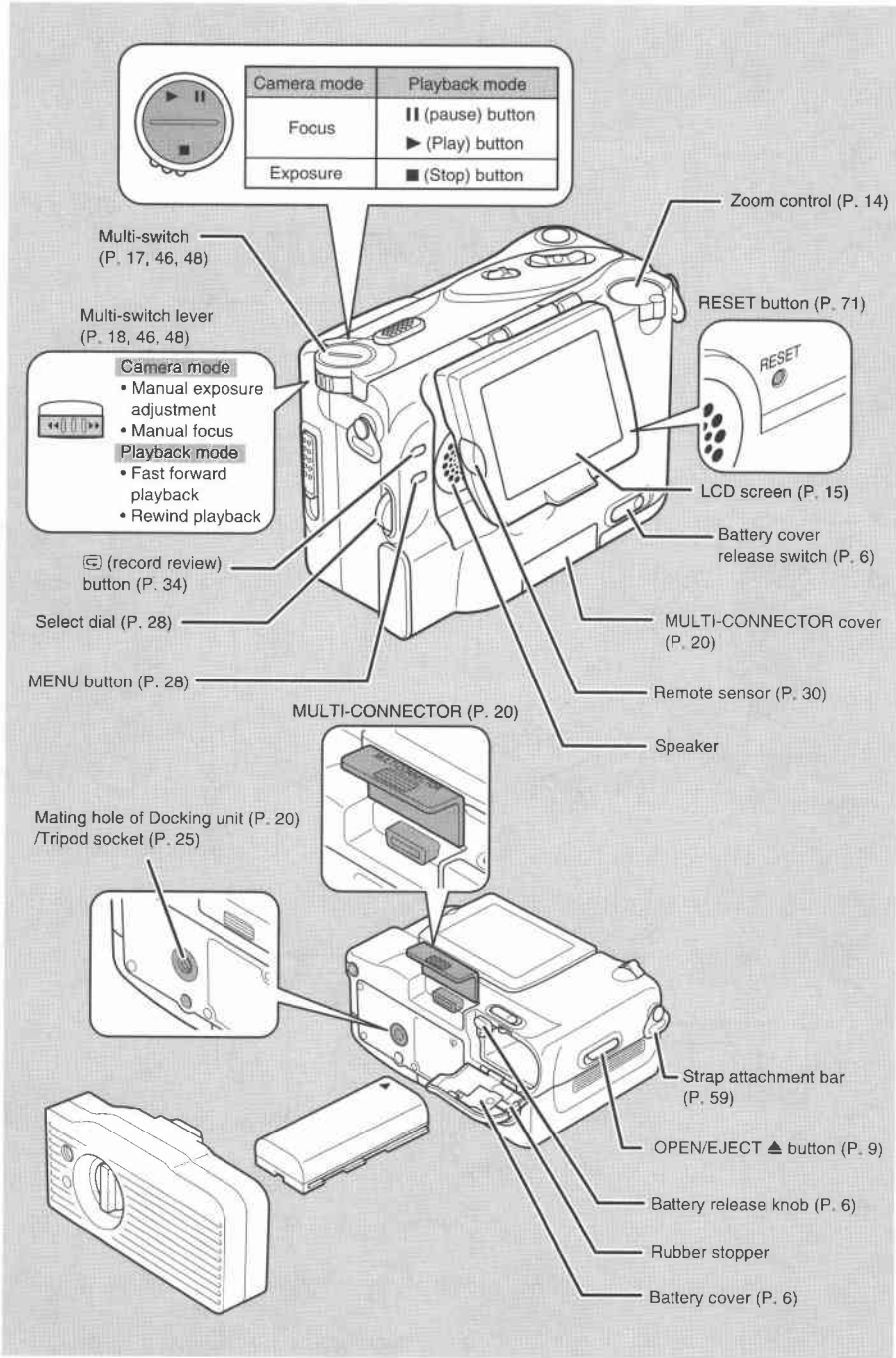
Note:

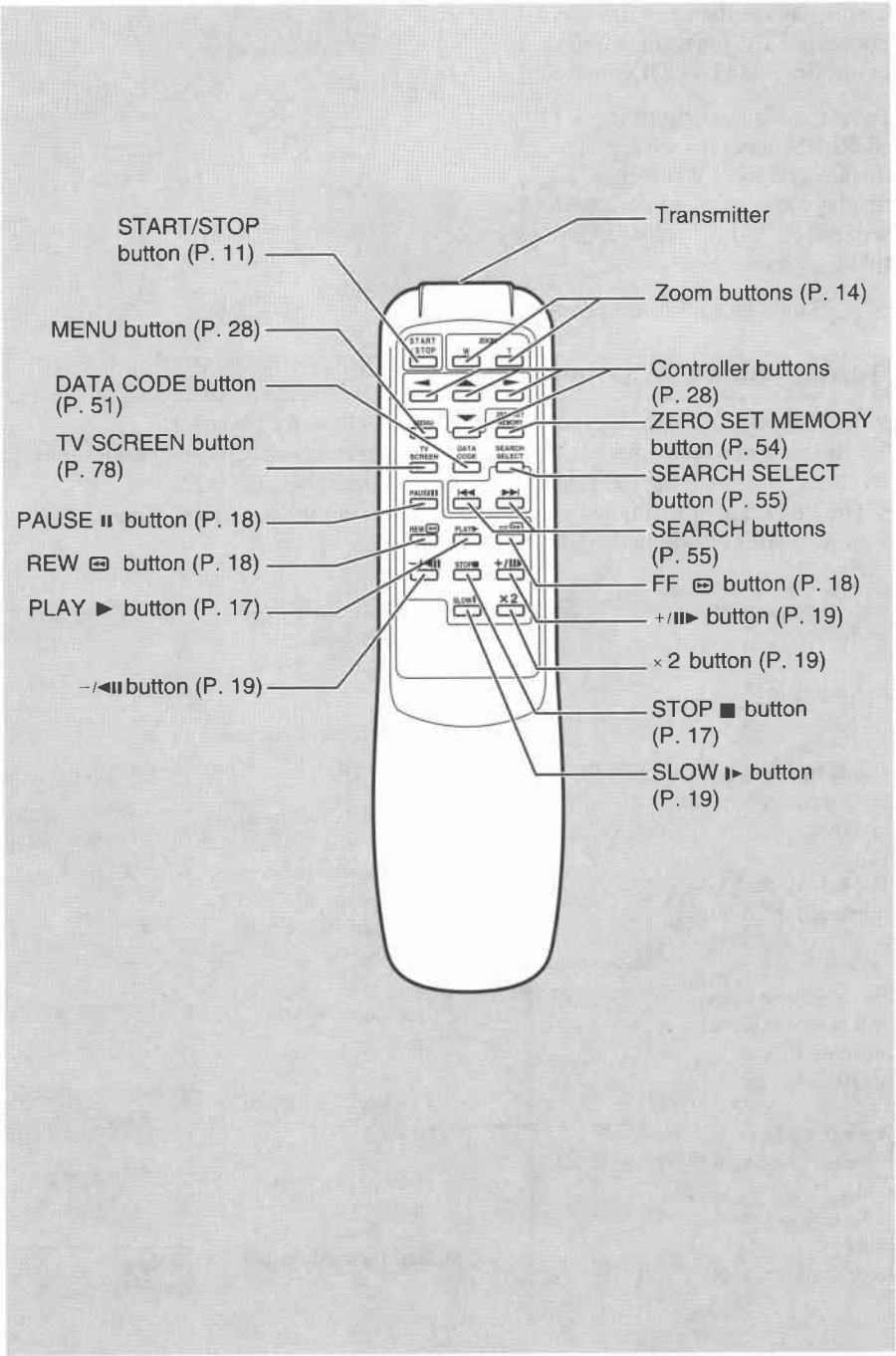
The DC-600 DC Coupler (supplied with the MV100) connects directly to the CH-900. Use it in place of the DC Coupler that is supplied with the CH-900.

This mark identifies genuine Canon video accessories. When you use Canon video equipment, we recommend Canon-brand accessories or products bearing the same mark.

Finding Your Way Around MV100




Camera mode
Playback mode
Focus
II (pause) button
▶ (Play) button
Exposure
■ (Stop) button
Zoom control (P. 14)
Multi-switch
(P. 17, 46, 48)
RESET button (P. 71)
Multi-switch lever
(P. 18, 46, 48)
Camera mode
• Manual exposure adjustment
• Manual focus
Playback mode
• Fast forward playback
• Rewind playback
RESET
LCD screen (P. 15)
Battery cover release switch (P. 6)
(record review) button (P. 34)
Select dial (P. 28)
MULTI-CONNECTOR cover (P. 20)
MENU button (P. 28)
Remote sensor (P. 30)
MULTI-CONNECTOR (P. 20)
Speaker
Mating hole of Docking unit (P. 20)
/Tripod socket (P. 25)
Strap attachment bar (P. 59)
OPEN/EJECT ▲ button (P. 9)
Battery release knob (P. 6)
Rubber stopper
Battery cover (P. 6)


START/STOP button (P. 11)
MENU button (P. 28)
DATA CODE button (P. 51)
TV SCREEN button (P. 78)
PAUSE ⏸ button (P. 18)
REW ⏪ button (P. 18)
PLAY ▶ button (P. 17)
–/◀II button (P. 19)
Transmitter
Zoom buttons (P. 14)
Controller buttons (P. 28)
ZERO SET MEMORY button (P. 54)
SEARCH SELECT button (P. 55)
SEARCH buttons (P. 55)
FF ⏩ button (P. 18)
+/II▶ button (P. 19)
× 2 button (P. 19)
STOP ■ button (P. 17)
SLOW I▸ button (P. 19)

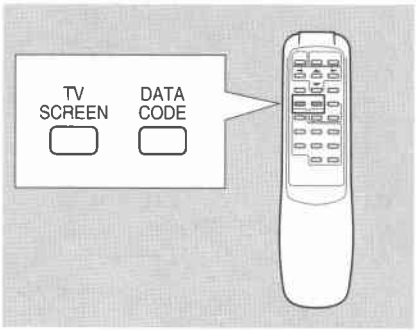
Screen Displays

E

To display the date and time on a connected TV, press the wireless controller's DATA CODE button.

Press the wireless controller's TV SCREEN button to see the other displays on the TV screen. (The displays appear white on-screen.) They will not be added to any recordings you make with the camera.

indicates a flashing display.



Turning off the LCD screen displays

You can turn off the displays to give you a clear screen for playback.
Set the camera to play mode, open the playback menu (page 27) and choose the DISPLAYS option. Set the displays to OFF and then close the menu.

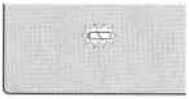
- The LCD screen will now be completely blank, but the camera will continue to show warning/caution displays when necessary.

Record pause mode (p. 11)

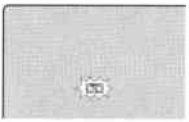
Recording (p. 11)

Shows how much battery power remains (p. 60).

The battery pack is exhausted (p. 7, 60).



No cassette is loaded, or it is set for erasure prevention (p. 10).

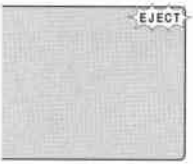


Remaining tape
(Green: more than 5 mins.
Yellow: less than 5 mins.
Red: final few secs).

...finally, it tells you when you have completely run out of tape.

The camera is ejecting the tape (p. 9).

The safety mechanism is activated. Unload the cassette and turn the camera off. Turn it on again and reload the cassette.



Recording mode (p. 13)

Playback is stopped (p. 17).

Normal playback (p. 17)

Fast forward (p. 18)

Additional Information

Rewind (p. 18)

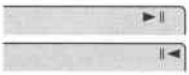
Fast forward playback (p. 18)

Rewind playback (p. 18)

Frame advance playback (p. 19)

Frame reverse playback (p. 19)

Playback pause (forward and reverse) (p. 18)



Slow playback (forward and reverse) (p.19)

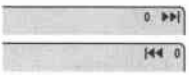
×2 playback (forward and reverse) (p. 19)

×1 playback (forward and reverse) (p. 19)

Photo Search (p. 55)

Date Search (p. 55)

Photo search is complete



Zoom display (p. 14): Optical zoom

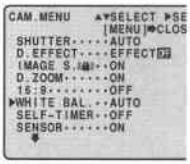
Optical plus digital zoom (the digital portion is shown in cyan on the LCD screen)

Zoom in

Zoom out

The image stabilizer is turned on (p. 29).

Camera menu (p. 27)



Playback menu (p. 27)

Program menu (p. 35)

The remote sensor is turned off (p. 30).

Self-timer countdown (p. 45)

Audio mode (p. 43)

Data code (p. 51)

Photo mode (p. 32)

- Setting the AF/AE ● mark flashes white

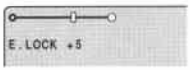
- AF/AE locked ● mark lights up green

Record search (p. 33)

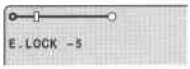
Recording programs (p. 35).

Manual exposure display (p. 46):
Exposure locked

Brighter than standard exposure level



Darker than standard exposure level



Shutter speed (p. 47)

Manual focus is selected (p. 48).

White balance is:
– SET
– INDOOR
– OUTDOOR (p. 49).

16:9 effect (p. 42).

Digital effects. The display flashes when the function has been selected and appears steadily when it is turned on (p. 39).

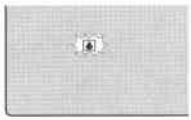
The wind screen is turned off (p. 44).

Zero set memory (p. 54)

Audio output (p. 63)

Mix select has not been released at the menu (p. 63)

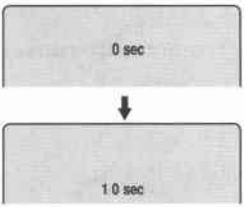
Condensation warning (p. 67)



Time Code

This records counter information, including hour, minute, second, and frame number on a special data code area on the tape itself. It is reset automatically when a new tape is loaded.

Recording reminder



When you start recording, the camera counts from 0SEC to 10SEC. Shots which are shorter than 10 seconds may be difficult to edit later. On the other hand, if you are not planning to edit the recording, remember that a shot which does not contain action should generally last no longer than 10 seconds.

Caution phrases

The camera displays various caution phrases — they appear for 4 seconds before disappearing.

Appears each time you turn the power on, until you set the date and time (p. 31).

Specifications

E

MV100

Power Supply (rated): 7.2 V DC
Power Consumption (while recording with the AF turned on): 5.9 W
Television system:
CCIR standard (625 lines, 50 fields)
PAL colour signal
Video recording system:
2 rotary heads, helical scanning
DV system (Consumer digital VCR SD system)
Digital component recording
Audio recording system: PCM digital sound: 16 bit (48kHz/2ch), 12 bit (32kHz/4ch)
Image sensor: 1/4" CCD (charge coupled device) 570,000 pixels (357,000 effective pixels)
Tape format: Videocassettes bearing the Mini DV mark.
Tape speed:
SP: 18.83 mm/s;
LP: 12.57 mm/s
Maximum recording time:
SP: 60 minutes (with a 60 min. cassette);
LP: 90 minutes (with a 60 min. cassette)
Fast forward/rewind time:
Approx. 2 min. 50 sec. (with a 60 min. cassette)
Lens: F/1.8–2.5, 11× power zoom, 3.9–42.9mm
Focusing system: TTL autofocus, manual focusing possible
Minimum focusing distance: 1 cm (3/8 inch) on maximum wide angle
Maximum shutter speed:
1/8,000 sec
Minimum illumination: 4.0 lx (using the Low Light program)
Recommended illumination:
More than 100 lx
LCD screen: 6.4 cm measured diagonally (2 1/2 in), 180,000 pixels (approx.)
Microphone: Stereo electret condenser microphone
DV Terminal: Special 4-pin connector (conforms to IEEE1394)
Output level:
Video terminal: 1 Vp-p/75 ohms unbalanced
S-video terminal*: 1 Vp-p (Y signal), 0.3 Vp-p (C signal)
Audio terminal: –11.5dBV, less than 3 kohms, unbalanced
Operating temperature range:
0–40 °C (32–104 °F)
Dimensions: 118.5 × 85.5 × 55.7mm (4 11/16 × 3 3/8 × 2 3/16 in)
Weight: 530g (1 lb 3 oz)

BP-608 Battery Pack

Battery type: Rechargeable lithium ion battery
Rated voltage: 7.2 V DC
Operating temperature: 0°–40°C (32°–104°F)
Battery capacity: 750 mAh
Dimensions: 30 × 16 × 71 mm (1 3/16 × 5/8 × 2 13/16 in)
Weight: 60 g (2 1/8 oz)

Weight and dimensions are approximate
Errors and omissions excepted.
Subject to change without notice.

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* Using the DU-100 Docking Unit (supplied).

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